

ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN



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see it as soon as possible.
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DECEMBER 1956





ALL HANDS

THE BUREAU OF NAVAL PERSONNEL INFORMATION BULLETIN

DECEMBER 1956 Nav-Pers-O NUMBER 479

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● **FRONT COVER: CHRISTMAS FROSTING**—Frozen spray clings to deck and superstructure of USS Glacier (AGB 4) turning her into a 'winter wonderland' as she makes passage through heavy seas on an Antarctic mission.

● **AT LEFT: CURRENT JOB**—A. D. Hallan, EN3, USN, checks diesel engine supplying electricity for USS Hamul (AD 20) and destroyers nesting alongside while in harbor at Long Beach.

● **CREDITS:** All photographs published in ALL HANDS are official Department of Defense Photos unless otherwise designated.

For Navy It's

carols across the beaches and through the palm trees, Santa Claus reigns, and Christmas Day is also highlighted by serving of the traditional dinner. The spruce or other varieties of pine trees is the center of attraction during the yuletide season in Hawaii just as it is in snow-capped New England or any other part of the states.

In recent years when shipping strikes almost prevented the annual supply of Christmas trees from reaching the islands, the Pacific Fleet Submarine Force took steps to see that its personnel based in Hawaii had their traditional Christmas trees.

Special arrangements were made with the Department of Interior, and sailors assigned to submarine activities at Mare Island went into the nearby mountains of California and cut enough trees to fulfill the demands of the Hawaii-based submarine sailors.

Not only did every married man under SubPac's control get one of these trees free, but the mess hall, chapel, theatre and departments throughout the submarine base also obtained them. The needs of units afloat were not overlooked either.

FROSTY THE SNOWMAN is welcomed aboard *USS Albany* (CA 123) during snow storm in the Mediterranean while cruisemen visit the French Riviera.

CHRISTMAS FINDS many Navymen dutybound and often thousands of miles away from their families. But regardless of where they may be, they still observe Christmas in a somewhat home-like fashion and celebrate the holidays as much as circumstances permit.

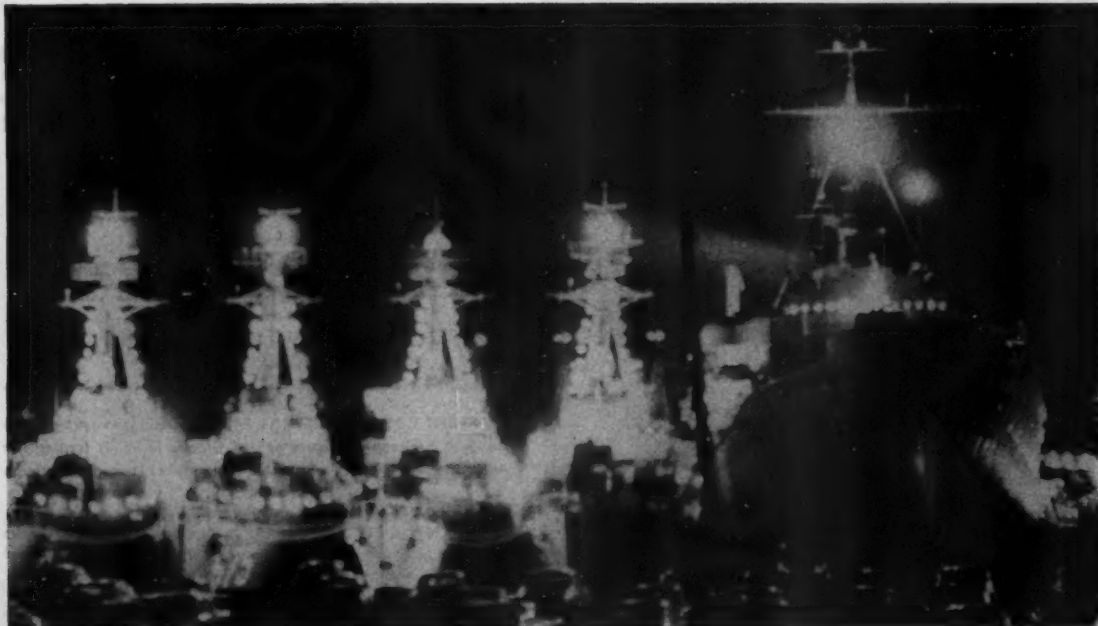
In the states, Christmas is celebrated during one of the coldest months of the year but the season finds many Navymen stationed over-

seas where it's warm all the time. How do they celebrate Christmas?

In sunny Hawaii, thousands of Navymen and their families celebrate Christmas about the same as their counterparts do in the sub-zero Narragansett Bay area where a white Christmas is usually a reality rather than a dream inspired by a song.

In Hawaii, where the warm trade winds carry strains of Christmas

FESTIVE LIGHTS for Christmas, decorating ships at Destroyer Pier in Newport, 'warm' the New England sky.



It's a White or Green Christmas

As a result, Christmas trees were prominently displayed from such places as the boxed nose of a submarine or attached to its periscope or radar mast. They appeared on the bridge, or in the case of one ASR, on the yardarm. Decorated trees were also present in almost every passageway, office and building throughout the base.

The Pearl Harbor sailors were proud of the festive yuletide decorations that appeared everywhere. But what the submariners really boasted about was the size of one tree—the biggest Christmas tree in the islands—and perhaps throughout the entire Navy.

This "daddy" of all Christmas trees is an artificial one. It's the 134-foot escape training tank, normally used for teaching submariners how to escape from a stricken submarine. During the yuletide season the tank takes on the appearance of a Christmas tree appropriate only to a Paul Bunyan legend.

During the day, it looks no different from the famed Pearl Harbor landmark which was built in 1932. At night, however, it takes on an almost unbelievable appearance. Its trimmings consist only of lights—approximately 800 of them. Eight strings of multi-colored lights are stretched at an angle from the ground up to the top of the tank which is crowned by a yellow and white lighted star. The star measures more than six feet in diameter and makes a complete revolution every 10 seconds.

This towering Christmas tree is visible from almost every point on the leeward side of the island of Oahu. It can also be seen many miles out to sea by all planes and ships approaching Honolulu or Pearl Harbor.

In spite of Hawaii's subtropical climate, naval activities have little difficulty in assuming the holiday atmosphere. Imported red-berried holly and mistletoe are used almost as much in Hawaii at Christmas time as in the States. The custom of decorating windows, doorways and roof tops prevails throughout the bases and naval housing areas.

At the Submarine Base, which is perhaps the most concentrated of the various activities based at Pearl

Harbor, almost every type of Christmas decoration imaginable is displayed.

On top of the AUW shop, which faces the entrance to the sub base nearest the Makalapa Gate, is a large mechanical Santa Claus, complete with eight reindeer and toy-laden sleigh. The heads and legs of the reindeer move, and they appear to be ready to dart off into the night. Santa also moves. He gives his familiar wave as though he were about to depart and move on to his next house call.

Nearby at the Torpedo Shop, hundreds of blue lights form a frame around the shop's many large

paneled windows centered in the front and each side of the building. Talented SubPac personnel paint Christmas murals in all the front and side windows that face the street. These bright-colored pastel paintings usually picture a New England village blanketed in snow. Some feature religious scenes while others are centered around the jolly old gent from the North Pole. Christmas music is piped through loud speakers mounted on each corner of the Torpedo Shop.

Across the street in front of the Chaplain's Office, in a natural setting of stone and swaying palms, is the ever-popular Nativity scene.

KING-SIZE Christmas 'tree' formed by 134-foot training tank at sub base in Pearl Harbor can be seen in tropical sky of sunny Hawaii for many miles.





CHRISTMAS FESTIVITIES for Navymen and their wives and friends include many social events such as dance shown here, both overseas and stateside.

USS *ARD-29*, a unit of the Pacific Fleet Service Force, which is permanently moored at the Submarine Base to render services to Pearl Harbor-based subs, is always brightly decorated for the holidays. Last year, the electrical decorations were made and put up under the supervision of the ship's electrician, Duane Offe, EM1, USN. He and fellow crew members strung multi-colored lights along both sides of the gangway and set up Christmas trees on the bow and quarterdeck of the floating drydock. A large white blinking star, which flashed across the calm waters of Pearl Harbor, was mounted on top of *ARD-29's* mast.

During the holiday period, the submarines and rescue vessels home-

ported at Pearl Harbor cease operations and remain in port in a standby status. They too take on the Christmas spirit, with each submarine trying to outdecorate the other.

In addition to displaying lighted Christmas trees from various parts of the boat, they also take on added color by putting up lighted wreaths, stars, crosses and appropriately worded greetings of the season.

USS *Bonita* (SSK 3) and many other of the subs based at Pearl dress ship during the holidays. *Bonita* and other subs, however, do not dress ship in its true meaning as other ships do. They dress themselves for the Christmas season by stringing multi-colored lights instead of flags and pennants from the bow,

up over the conning tower, and down to the stern.

Christmas in Hawaii wouldn't be complete without old St. Nick making his usual appearance. Not to be confined because of lack of snow in the islands, Santa wouldn't think of arriving to greet dependent children of SubPac personnel by any means except submarine. One year a submarine returning after an extended cruise to WestPac was diverted North, and arrived at Pearl Harbor with St. Nick himself on the bridge giving commands, instead of the skipper.

The Navy Exchange at the Submarine Base displays a large assortment of toys that delight youngsters of all ages. It stocks more than enough for Santa to fulfill his many requests and usually causes dad's annual savings to be deposited under the Christmas tree.

Christmas in Hawaii or anywhere wouldn't be complete without the traditional religious rites. Candlelight services and midnight mass on Christmas Eve are the order of the day for all Protestant and Catholic chapels in Hawaii. After these services, it is customary for all hands and their dependents to join together and stroll through the base and nearby housing areas singing Christmas carols.

Christmas day itself gets off to a fast start as wide-eyed youngsters hurry downstairs to tear open packages that were mysteriously placed under decorated pine trees.

Mess halls throughout the islands feature the traditional Christmas dinner with roast turkey, ham, duck and all the trimmings being served. On Christmas Day, like Thanksgiving, the married Navymen have the opportunity to give their wives an added treat by bringing them to their ship or base for dinner.

Those who desire to prepare dinner at home usually invite a number of their single shipmates to share the day's festivities with them.

Navy wives find no difficulty in purchasing king-size turkeys and all the fixin's as they are usually available in commissaries and civilian markets by the ship-loads. This year in fact, Navymen and their families in Hawaii will be buying numerous items for Christmas dinner in the new Pearl Harbor Commissary. This large, modern store just opened in recent months, claims the title of "world's largest supermarket."



NO SNOW HERE—Santa pays a visit without his sleigh when he calls on Navy families stationed in such spots as Hawaii and other Pacific islands.

While most Navymen overseas celebrate Christmas away from home, they still observe it as a "warm" occasion, compared with most bluejackets based in the states.

Judging from the colorful decorations which appeared last year along the cold, wind-swept Narragansett Bay area, the sub-zero weather and choppy seas didn't hold back the Christmas Spirit of Newport-based destroyermen.

From the Melville Net Depot to the Fleet Landing at Newport, sailors aboard approximately 90 ships in the area prepared their ships for the Yule season.

At Melville, where 18 destroyer type ships were berthed at piers, *uss Grand Canyon* (AD 28) mounted a red-lighted cross amidships. Not far from that tender, the 18,310-ton tanker *uss Allagash* (AO 97) berthed at the North Dock, displayed the largest star of them all. Formed with white bulbs, the star measured 50 feet from point to point. *Allagash* crew members also used some 110 bulbs to string a 553-foot line of multi-colored lights from stem to stern.

uss Sturtevant (DE 239) had a wooden Santa Claus on her pilot house; *uss Raymond* (DE 341) strung lights of various colors the length of the ship; and *uss Dealey* (DE 1006) had a decorated Christmas tree on her bridge.

While white stars were visible below yardarms of a number of ships moored to buoys in the bay, Santa Claus and his reindeer could be seen aboard *uss Gatling* (DD 671) in the nest at M-15.

Liberty boats leaving the Transit Shed Landing were far from "riding with ease" as old St. Nick did in Hawaii. Icy winds and freezing spray made boating to and from the ships far from a pleasure ride, but they added to the White Christmas theme. Ice-covered launches arrived at landings with coxswains clad in heavy clothing, life jackets and goggles.

Joining in the Christmas decoration efforts were the fleet oilers, *uss Mississinewa* (AO 144), at M-26 with a long string of lights between her three masts, and *uss Severn* (AO 61) at M-24 with a 15-foot cross on her mainmast.

Destroyer Pier One provided a kaleidoscope of yuletide color. *uss Yosemite* (AD 19), ComDesLant flagship, had a block lettered "Merry



CHRISTMAS GLOW—Superstructures of Amphibious Force flagships moored at Norfolk, Virginia, become glowing Christmas trees during yuletide season.

Christmas" between her stacks and a star on her foremast. The "tincans" of Destroyer Division 202, alongside *Yosemite*, featured *uss The Sullivans* (DD 537) with a sign of red bulbs readings: "Merry Christmas, *The Sullivans*."

Other ships, including *uss McNair* (DD 679), *uss Hancock* (CVA 19), and *uss McGowan* (DD 678) all had colored lights strung like shrouds from their foremasts.

Across the pier, *uss Cascade* (AD 16) had lights running fore and aft. One of the most unusual rigs in the entire harbor was a speckled cross mounted in the forward radar antenna of *uss Benner* (DDR 807) as it was moored alongside *Cascade*.

Benner also had a Christmas tree perched on her forward five-inch gun mount.

The ships of Destroyer Escort Squadron 12 were also represented in the color parade with lights leading up to the masthead of *uss Tweedy* (DE 532), stars glittering from *uss Tabberer* (DE 418) and *uss Thaddeus Parker* (DE 369) and lights displayed fore and aft aboard *uss Woodson* (DE 359).

From all indications, it is apparent that Navymen—regardless of where Christmas may find them—celebrate the age-old holiday in a most joyful and colorful manner.

P.S. Happy New Year too!

—H. George Baker, JOC, USN

SPREADING CHRISTMAS cheer throughout the world has become traditional with the men of the Fleet. Here, sailors hold party for Japanese orphans.



THE WORD

Frank, Authentic Advance Information On Policy—Straight from Headquarters

• AUGUST EXAMS PAID OFF—

More than 60,000 enlisted Navymen were authorized in November to advance in their respective ratings to pay grades E-4, E-5 and E-6 as a result of the August service-wide examinations.

Breakdowns show that 39,473 may be advanced to pay grade E-4; 16,596 to pay grade E-5; and 4944 to pay grade E-6.

In addition, 1814 in certain ratings, as determined by the Chief of Naval Personnel, may be designated as strikers by their commanding officers.

• **DESIGNATED STRIKERS** — The process of becoming a designated striker is more selective now. If you want to become a striker, you must show definite proof that you are well qualified.

There are only two ways in which you can become a designated striker: (1) successfully complete a Class "A" school, or (2) make a sufficiently high score on the service-wide examination for advancement to indicate that you are well qualified for the rating, even though your final multiple and/or examination score was not high enough to warrant promotion.

Under this policy, more controls will be placed on the number of men who are designated strikers in specific ratings and the quality of the individuals so designated will be kept at a high level.

Once you become a striker, the only way you can change your designation is upon approval by the Chief of Naval Personnel. Among other things, if you desire to change your designation, you must prove that

you're qualified to strike for the new rating by successfully completing the Navy Training Course, practical factors, and a locally prepared examination for the rating desired.

The only way to lose a striker designator is through incompetency. The CO must justify such action by an entry in a man's service record showing an unsatisfactory evaluation in "professional performance." All other cases in which it is found that a man no longer rates a striker designation must be referred to the Chief of Naval Personnel.

A striker or third class PO who is reduced in rate for disciplinary reasons will still keep his striker identification. But if he's reduced in rate for incompetency, he'll also lose his striker designation.

Complete information may be found in BuPers Inst. 1221.1A.

• OFFICERS TO SUPPLY CORPS—

Line officers of the Regular Navy with the rank of ENS, LTJG and LT, with date of rank of 2 Jul 1954 or later are eligible for transfer to the Supply Corps. LTs and LCDRs who are not physically qualified for continuance in the line are also eligible for transfer to the Supply Corps.

Those officers applying must complete at least one year of sea duty before 1 Feb 1957, the deadline date by which applications should be received by the Chief of Naval Personnel.

The Chief of Naval Personnel will acknowledge all applications received and will inform individuals of their selection or nonselection as soon as practicable after the selec-

tion board meets on or about 21 Feb 1957.

Officers selected for transfer to the Supply Corps will be ordered to the Naval Supply Corps School at Athens, Ga., for duty under instruction for a period of about six months. Complete details may be found in BuPers Notice 1210.

• **IDEAS FOR NAVY LOG**—Have you had any unusual experiences since you joined the Navy? Submit them to: "Navy Log" Project Officer, Chief of Information, Navy Dept., Washington, 25, D.C.

Ideas and suggestions are all that is needed. Researchers and professional script writers will do the rest. Who knows, your experiences or idea may be featured nationally on the weekly "Navy Log" TV series.

• '57 RECRUITING AND RETENTION

PLAN — A Master Recruiting and Retention Plan has been launched by the Navy in an all-out attempt to fulfill its personnel requirements during fiscal year '57 without depending upon selective service.

Through "Personalized Recruiting and Retention," the Navy during the next year plans to:

- Recruit 90,000 new four-year men.

- Accept 24,000 enlisted Naval Reservists, on a voluntary basis, for two years of active duty.

- Obtain a minimum reenlistment rate of 25 per cent among those completing their first enlistment. (Current rate is from 10 to 14 per cent.)

- Maintain a 90 per cent reenlistment rate among career personnel.

- Restrict enlistment of personnel in lowest mental group (IV) to 18 per cent of the over-all total of new recruits and obtain the highest allowable percentage of those in upper mental groups.

- Procure a total of 16,000 new officers.

Plans for required officer input calls for the commissioning of 5500



Remember the Christmas spirit! — Share ALL HANDS with nine of your shipmates! Be sure to PASS THIS COPY ON.

ensigns through the Officer Candidate Program and 2600 from Naval Aviation Cadet and Aviation Officer Candidate Programs.

Approximately 500 enlisted men will be commissioned during Fiscal Year '57 as a result of these programs. The 500 enlisted men scheduled for commissions are in addition to those selected under the Warrant Officer, Limited Duty Officer and Integration Programs.

Through the efforts of the Master Recruiting and Retention Plan, the Navy expects to fill its authorized strength of 672,000 — 73,800 officers and 598,200 enlisted men by 30 Jun 1957.

● **TRAILER WARNING** — If you're planning to hire a commercial mover to transport your trailer from one duty station to another, better check into your carrier's credentials. Reports indicate that a number of Navy men have been victimized by financially irresponsible haulers who, in the event of an accident, have been found to carry no insurance and have been unable to pay for the damage incurred.

The best way to avoid such a situation is to be sure that your carrier has been certified by the Interstate Commerce Commission, which has set up regulations for your protection.

Certificated carriers are those that comply with the regulations and are issued a certificate by the ICC and are required to file tariffs. One of the requirements of ICC is that the carriers must be financially responsible and be covered by insurance.

● **USNR Officers on Active Duty** —

If you're a Naval Reserve officer with an indefinite release date you may, with certain exceptions listed below, expect to remain on active duty for the foreseeable future.

If you are scheduled for release from active duty because of expiration of obligated service or voluntary extension you may, if you wish, request an extension of active duty for a specific or indefinite period. Officers whose active duty agreements expire are automatically assigned indefinite release dates.

If you are on active duty (other than TAD or AcDuTra) and are within two years of qualifying for retirement with pay under any purely military retirement system, you will not be involuntarily released from active duty before qualifying for

retirement pay unless your release is approved by SecNav.

According to the provisions of BuPers Inst. 1926.2A, which sets the policies for retention and release from active duty of USNR officers, Reservists will be released from active duty if they fall in the following categories:

- Those officers, except members of the Medical, Dental and Nurse Corps, who are eligible to retire with pay under the provisions of any retirement law will normally be released with a minimum of four months' advance notice. Retirement requests should be submitted at least two months before the effective date of retirement.

- Men officers, except those of the Medical and Dental Corps, in the grade of commander who reach age 58, and lieutenant commanders and below who reach age 52 will normally be released with four months' notice.

- Women officers, except Medical Corps officers, in the grade of commander who reach age 55 and lieutenant commanders and below who reach age 50 will normally be released with four months' notice.

- Officers in the grade of commander and below, except officers of the Nurse Corps, who twice fail of selection while on active duty will normally be released on 30 June of the fiscal year in which they fail of selection for the second time.

- Women officers, except medical officers and nurses, who are serving in the grades listed below and are not on a promotion list will be released from active duty on 30 June of the fiscal year in which they complete the following years of active commissioned service: lieutenant (junior grade), seven years; lieutenant, 13 years; lieutenant commander, 20 years.

It should be noted however, that the Chief of Naval Personnel may release any Naval Reserve officer at any time on the basis of unsatisfactory performance.

The above paragraphs, which discuss the release of USNR commissioned officers, are also applicable to USNR warrant officers.

The exception of Medical, Dental and Nurse Corps personnel from certain of these release policies is not intended to result in the involuntary retention of these officers. If eligible, and they desire their release, they may notify the Chief of Naval Personnel of their intent.

HERE'S YOUR NAVY . . .

Men of the Sixth Fleet received a message from ComSixthFlt on 16 Nov 1956. ALL HANDS, believing that message to be of interest to other elements of the Navy, passes it on.

★ ★ ★

Through press reports you have all been able to follow the main outline of events in the Middle East and are aware of current efforts to restore peace and security in the area. But after three weeks of continuous steaming for most of you, I do not have to be told the question uppermost in your minds.

I do not know how long we will be at sea nor can I predict how long our presence will be required in the Eastern Mediterranean. I can only hope with you that the answers come soon and that they will be the answers we all want to hear.

★ ★ ★

Meanwhile I think it will help if occasionally we remind ourselves and our loved ones at home that it is times like these that give point and meaning to the existence of our Navy. It is times like these that give us new pride in the uniform we wear and the cause we serve.

The Sixth Fleet is made for the job it is doing. No other force in the world can do it so well. The Sixth Fleet is a great stabilizing influence throughout the Mediterranean. It is a watchful protector of American lives and American interests.

★ ★ ★

Should the grim need arise it will be a formidable opponent with a Sunday punch no aggressor dare ignore without regret. The Sixth Fleet is men — you and I and all the rest of us.

I share with each of you the alternating boredom and uncertainty of each passing day. I would like to think that each of you share with me the quiet satisfaction of knowing that but for our presence here things might be a lot different.

/s/ Charles R. Brown, VADM, USN

SERVICE RECORDS—

SO FAR AS YOUR CAREER is concerned, you are as good as your record says you are—no better and no worse. Decisions involving promotion or advancement, training, duty assignments, discipline, pay and allowances, rights and benefits are as determined, to a large extent, by the information contained in your service record.

Your service record is as important to the Navy as it is to you and, because of this mutual interest, you can be sure—no matter who you are—that the contents of your record are as zealously guarded and as carefully administered as modern methods and ingenuity will permit.

For one thing, *Navy Regulations* designates the Chief of Naval Personnel as responsible for the maintenance of service records of all personnel in the Navy, including Naval Reserve and NROTC personnel.

This adds up to a lot of work. Maintenance of these records is of such importance that more than one-third of the people employed by the Bureau, under the direction of an Assistant Chief of Naval Personnel, are engaged in this task. This is where you'll find the records:

- In the Bureau itself are kept the records of all enlisted personnel, Regular and Reserve, now under an enlistment contract, including those retired and those in the Fleet Reserve.
- The service records of former enlisted personnel are stored in the Discharged Enlisted Personnel Records Branch of the Bureau, at the Department of Defense Personnel Records Center at St. Louis, Mo.
- The records of NROTC midshipmen and Regular and Reserve officers who are not retired are kept in the Bureau; those for retired and former officers are stored in the

Navy Records Management Center, Alexandria, Va.

All records stored outside the Bureau are in the physical custody of the Navy Management Office but under the technical control of the Chief of Naval Personnel.

There are several popular misconceptions regarding personnel records. The Officer's Service Record maintained in ships and stations and in Commandants' Headquarters, for example, is not a duplicate of the official Officer's Record maintained within the Bureau. It is a record of his service officially authorized to be maintained in the field to help a commanding officer familiarize himself with the abilities, specialties and background of the officers attached to his command. When an officer is separated from service this service record is turned over to him.

The official "Officer's Record" maintained within the Bureau for each officer in the naval service consists of a Selection Board Jacket and Fitness Report Jacket. Correspondence of a general administrative nature is not considered a part of the "Officer's Record" maintained by the Bureau and is filed in a separate jacket referred to as the Officer's Miscellaneous Correspondence and Orders File. This file includes copies of orders, officer order memoranda, reports of leave, beneficiary slips, home address and other material which may be needed for administrative purposes but not required in his "Officer's Record" for evaluation. The Enlisted Service Record maintained by ships and stations is a field record of an enlisted man who is serving under an enlistment contract. This record consists primarily of original documents of which copies are in the Enlisted Service Jacket in the Bureau.

If you are at present enlisted, the



OFFICERS RECORDS
REVIEW ROOM
3057

4055
ENLISTED RECORD
REVIEW ROOM

ENLISTED
SERVICE JACKET

BUREAU OF NAVAL PERSONNEL
OFFICERS
FITNESS REPORT
JACKET

YOUR NAVY REPORT CARDS

Enlisted Service Record is your official record (and the most reliable one). The duplicate material maintained in the Bureau is used for many administrative purposes and permits reconstruction of your service record if it is lost in the mail, your ship is sunk, or because of some other catastrophe.

When you are discharged, your Enlisted Service Record is forwarded to the Bureau and combined with the material maintained in your Enlisted Service Jacket. Thus, the jacket at this time becomes the official and most reliable record, containing, after your discharge, the originals of your important documents.

Another common misconception is that an officer or an investigator of a government agency is entitled to review the records of enlisted men or other officers. This is not so.

Before a record is made available to *anyone*, he must state the reason for his request and his request will be rejected if it does not comply with the strict letter of the law. Severe penalties are prescribed for unauthorized removal of material from, or alteration of, official records. Except for review by the individual himself, his agent, or duly constituted boards, access to service records is governed by a set of strict rules.

However, you yourself may review your own record at any time, or you may authorize (in writing) any other person to do it for you.

Another popular—and incorrect—belief is that records are simply filed away and stay there, gathering dust. Again, not so. They gather data, not dust.

Records are withdrawn from the files for many purposes, such as detailing, promotion, discipline, separation, answering inquiries, investi-

gation, continuity maintenance, as well as review by selection, examining and various other personnel boards. Most of the work of the Bureau involves the use of personnel records.

Since these records are in almost constant use, filing becomes a problem and delays are sometimes met in answering routine correspondence which involves use of the record. That's one of the reasons why you may not receive as prompt an answer as you may wish when you write to the Chief of Naval Personnel.

The answer to your letter may be only one of the 4000 prepared every working day, and your epistle may be buried in the millions of documents sifted, arranged, processed and filed in the Bureau every month. The activity connected with personnel records stored outside the Bureau involves filing almost three-quarters of a million documents and answering more than 150,000 queries each year.

The rights and benefits to which you become eligible upon appointment or enlistment and upon discharge from the armed forces have greatly increased in recent years. So has the need for relevant records and reports to Congress and the Department of Defense. The records must be complete and accurate, yet new requirements are added almost daily which make record-keeping more and more complex and, as a result, tend to make them less and less accurate.

To insure accuracy of these records, the Chief of Naval Personnel tries to keep unnecessary material out of service records and to keep the mechanics of their maintenance as simple as possible. Certain ground rules, based on common sense, are observed to keep record jackets

from becoming too bulky and difficult to use. No adverse material is placed in your record without your knowledge and your written statement concerning it.

A by-product of personnel accounting is the completeness of the Bureau jacket. Certain information reported in the Personnel Diary is in turn reported by a Personnel Accounting Machine Installation (PAMI) in the form of punched cards to the Bureau, where it is reconciled with documents which should have been received for filing in the jackets.

You have more first-hand knowledge about your service than anyone else. You are the person best qualified to check the accuracy of your record.

Your record at your ship or station, or in the Bureau of Naval Personnel is always available to you for review. Both an *Officer Record Review Room* and an *Enlisted Record Review Room* are maintained in the Bureau specifically for that purpose. *All hands are invited to make use of them.*

In short, your military personnel record is an important file of documents which are always retained in Navy custody as official Navy Department records and are never destroyed. Only "persons properly and directly concerned" may have access to your record.

You have a direct interest in what is contained in your record and are encouraged to bring to the attention of the appropriate officer any inaccuracy or omission in it. The recording of your personal history is done with the maximum possible accuracy and once recorded, it is hard to change.

By your own actions you write your own history, the Bureau merely records it.





Yokosuka — For Fun



THE HEAVY TRAFFIC of Navy ships in and out of Yokosuka the last 10 years has made this city one of the most visited liberty ports in the world.

Few Navymen sightseeing in this Japanese city have failed to take a trip through the labyrinth of streets and alleys that comprise the downtown souvenir-hunter's paradise. Glamorous and gaudy, this district presents a fascinating panorama of

oriental merchandising designed to attract the sightseeing sailor.

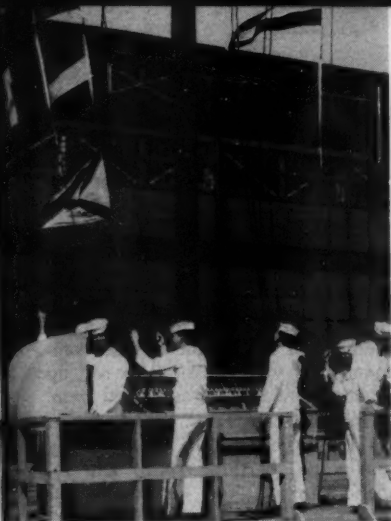
A more broadening liberty can be found away from the bright lights of downtown. The outlying farmlands, seashore, ancient shrines, and wooded hills produce a more authentic version of traditional Japan.

Thus many Navymen take the short trip out of Yokosuka to Kamakura. This ancient sea port was long the center of Japanese feudal government. Here are fine examples of traditional Japanese architecture including the world-famous statue of Buddha whose bronze body is over 42 feet high.

Top Left: Navyman looks over souvenirs in one of Yokosuka's many shops. *Top Right:* Motorized ricksha provides easy way to see the sights. *Left:* Signs in Japanese and English announce the wares of merchants. *Lower Left:* Big Buddha in Kamakura attracts attention of sailors touring outlying areas. *Lower Right:* Yokosuka's plush EM club offers many forms of recreation.



ALL HANDS



Land and Fleet Training

THE CLACK OF sending keys has joined the scratchy jazz from Japanese juke machines, while searchlight signals and neon brighten the on- and off-duty hours of many Pacific Fleet strikers these days. The cause: the influence of Nippon nights and days upon students at three new schools now in operation at the Yokosuka headquarters of Fleet Training Group, Western Pacific.

First of the new training facilities is a six-week Signalman School, which is teaching quartermasters and would-be holders of the recently-restored signalman rating the intricacies of semaphore, searchlight operation, flaghoist signaling and the proper way to keep a signal log. The six weeks' course moves at a rapid pace under the tutelage of Kenneth H. Mott, RM1, USN, and Richard F. Dail, QM1, USN, and the graduates return to their duty stations with a good working knowledge of the Navy's visual communications.

Second is a four-week Quartermaster School, instructed by George W. North, QM2, USN, and designed to acquaint students with the duties of a watchstander and navigational aide.

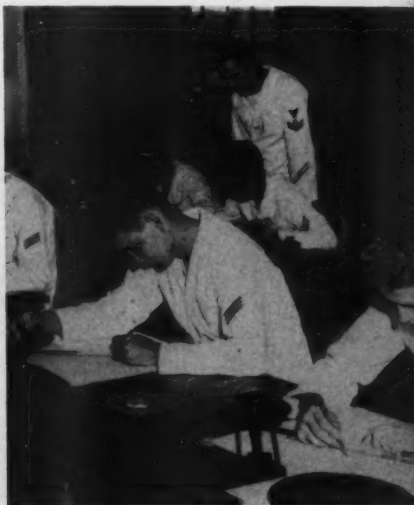
Radio Operators School, Yokosuka style, is the one formerly in operation at Sasebo, Japan. It was relocated for improved control by ComFleTraGruWestPac. The school is equipped to teach each class of 50 students radio operating, typing, hand-sending, voice circuits, voice procedure, CW (Continuous Wave)

manual circuits and CW procedure. In addition to instruction provided by Eual E. Kirksey, RMC, USN, Joseph Simchera, RM1, USN, and William Kirchner, RM2, USN, the school curriculum includes the use of several motion pictures covering basic electronics.

Other training available at the training group's Yokosuka headquarters includes (in addition to "beach logistics") courses in the operation of motion picture projectors, aerology, basic atomic defense indoctrination, fire fighting, cold weather indoctrination and there is also a course in food sanitation.



STUDENTS LEARN use of signal searchlight. Below Left: William Riley, ETC, calibrates radio receiver at school. Right: QM students work with charts.





ABC Sailors' A

D-DAY IS OVER. The landings have been made; the beachhead is secure. Enemy troops have been withdrawn from the island—at least temporarily.

It won't be long now before your outfit really starts to roll. As a member of an advanced base command it's your mission to set up what's known as an advanced base.

In this case, the base you set up must be capable of supplying anchorage, berthing space and logistic support for a hunter-killer group made up of one CVE and six DDs or DEs. In addition, the base must be prepared to handle weekly arrivals of small convoys of eight to 10 vessels, four or five naval auxiliaries and merchant vessels in need of minor repairs.

The base will be staffed with about 4000 officers and enlisted men. Provisions must be made for antiaircraft artillery and helicopters.

Sounds like quite an assignment, doesn't it?

Yet that's the sort of problem an advanced base command faces in time of war. It requires a considerable amount of preparatory thinking and work—and a pool of trained personnel to draw from. Naval Re-

MOVING IN on enemy's heels, Advanced Base Command units can quickly turn war-torn area into operating base.



Are Match for Lions, Cubs

serve Advanced Base Command units solve such theoretical problems during their annual periods of active duty for training.

The Advanced Base Command Program of the Naval Reserve is made up of 25 units, designated as "LION," "CUB," or "ACORN" divisions. The allowance for a LION division includes billets for personnel available for assignment to a large advanced base. A CUB is billeted by personnel earmarked for small advanced bases. An ACORN division allowance includes billets for men available for assignment to a Naval Air Station in an advanced area.

Members of these divisions attend 48 drills and are required to perform two weeks' active duty for training (AcDuTra) each year.

Drill night instruction includes lectures, group discussions and practical problems dealing with the various phases of planning, organization, administration and operation of advanced bases.

A training pattern, involving a three-year cycle, has been prescribed for AcDuTra. During the first year, emphasis is on training the individual in his specialty. During the second year, Reservists train at continental stations, bases or air stations, combining on-the-job training and group participation in the solution of problems—both hypothetical and actual—that would apply to the type of unit in training. Third year AcDuTra calls for training at outlying or overseas bases. There, Reservists receive on-the-job training and take part in the solution of practical problems under conditions approaching advanced base environment.

Members of CUB Command Division 11-1, Los Angeles, Calif., recently took part in a third-year AcDuTra exercise at San Clemente Island, Calif.

The Reservists had as their training mission, the establishment of a CUB base similar to the one described above, and an ACORN base capable of carrying out effective anti-submarine warfare operations.

While the actual assault operation and physical construction phases of the bases were omitted, every effort was made to make the training as realistic as possible.

Actual island conditions were used for the problem; existing installations on the island were ignored.

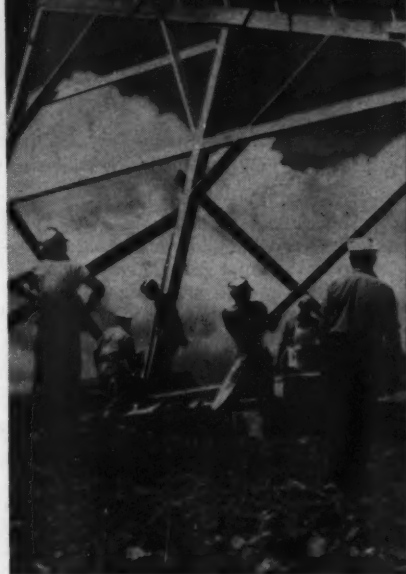
Here's how the Reservists tackled their problem.

The Division received detailed instructions outlining all phases of the two-week training period. Reservists toured accessible parts of the island to become familiar with the terrain.

They were supplied with "intelligence information" to help them determine the attitude of the "native population." Intelligence reports indicated that the Reservists could count on friendly cooperation from the people and that internal security measures need not be greater than those used in an allied country. However, enemy air- and submarine-launched missile attacks were a possibility, as was enemy use of atomic weapons.

A seminar was conducted at which the preliminary layout of the base—with as many alternate choices as possible—was established. This work was done with the aid of available maps and charts of the area.

Instruction was given covering the possibilities and limitations of actual physical construction in the areas under consideration. This covered



RESERVE ADVANCED Base units train to be ready to direct establishment of advanced bases. Below: Reserve officers study construction during drills.





PLANS FOR advanced base include berthing and care for ships. RT: ACORN officer learns about the mission of YTB.

buildings, storage facilities, pipe lines for fuel and water, communications facilities, roads, waterfront facilities and an anchorage.

After this study of space requirements and construction limitations was completed, a reappraisal was made of the preliminary base layout. Revisions were made, as appropriate, and more careful drawings were prepared.

Once the preliminary studies were completed, the Reservists were given detailed instruction in the various phases of the operation. They gained knowledge of base and perimeter defense; harbor installations, harbor defense and the protection of ships; and sanitation and water supply.

Training in each phase was thoroughgoing. For example, members of Naval Reserve Harbor Defense

Division 11-3(OP), San Diego, Calif., flew to San Clemente Island to demonstrate harbor defense techniques to Reservists in CUB unit.

Topics covered included underwater detection gear, such as sonar radio buoys, cable-connected hydrophones, surface search radar and helicopter assistance.

The final phase of the training problem was a review of the operational requirements of the base, aimed at developing the most economical use of men, equipment and material in the construction of an advanced base.

Seminars were held so that each student could gain basic knowledge of the requirements of all the departments involved in the operation.

Members of Advanced Base Com-

mand units must be trained in the operation of an established base as well as in the planning and setting up of a new base.

Reservists in ACORN Command Division 1-2, Boston, Mass., pioneered this type of AcDuTra when they flew to the naval station in Bermuda for active duty for training.

The ACORN members paired off with their opposite numbers at the station. On-the-job training was the primary mission of this training cruise and the Reservists gained first-hand knowledge of how an established outlying base operates.

It is practical, realistic training such as this that keeps these Naval Reservists "on top" of the changing problems of modern warfare. If "Mob-Day" comes, they'll be ready.

ADVANCE BASES provide operational headquarters for Navy air arm. Below: Tinian was advanced base in WW II.



Last Days of the 'Marianas Express'

AFTER 11 YEARS OF service, the battered veteran of a thousand strange journeys is on her last trip home to find a place in the mothball fleet.

You won't find her name in any of the current histories, but *Old 448* holds a place in the folklore of the Marianas greater than that of *Constitution*, *Forrestal* or *Nautilus*.

From copra to cement, from livestock to sewing machines, plus passengers of all sizes and ages loaded within the four sides of her tank deck, *uss LSM 448* has chugged from island to island since 1953. Every three months she has touched at Tinian, Saipan, Anatahan, Alamagan, Pagan and Agrihan on a routine administrative trip to haul medical supplies, food, transport the natives from island to island and pick up the copra harvest on each island—which is later hauled to Japan.

A typical trip would begin at Saipan where, after unloading cargo hauled from Guam, the crew of three officers and 50 enlisted men lay over for a day or so before departing to the north. Early in the morning of the day of departure, the hundred or more natives who make the trip would arrive laden with their belongings, which might include food, chickens, pigs, canoes, ox carts, or almost anything else that can be named.

Many of the passengers would be returning to their home islands after attending school, receiving treatment at Saipan's naval hospital, working, or just traveling for the fun of it.

Residents of the Marianas think nothing of moving from island to island, so they occasionally pack all their belongings on the seagoing moving van and start housekeeping at another site.

LSM 448 served as moving and cargo van and also as a passenger vessel for those making a round trip to visit friends and relatives at some other spot in the archipelago. Often enough, when they went visiting, the master of the household would decide to take along his favorite cow or pig.

However, the primary reason for the 10-day journey was not to provide local transportation. It was a field trip to permit a dentist, doctor, missionary, a health sanitation specialist or an agriculturist to provide

necessary aid and education to the Northern Marianas.

On the outbound voyage the ship would spend an hour or so at each island, while the doctor checked for medical emergencies. Food and medical supplies were unloaded at that time also. Each island has its own village doctor who had been given special training for treating emergencies between the visits of *448*, with the medical supplies issued.

The dentist who accompanied the ship would usually be left on one of the islands with his portable dental unit while *448* went on. On the return leg, he would be picked up and brought back to Saipan. The ship would spend a day, or day and a half at each island on the return trip, loading copra and any other items destined for Saipan.

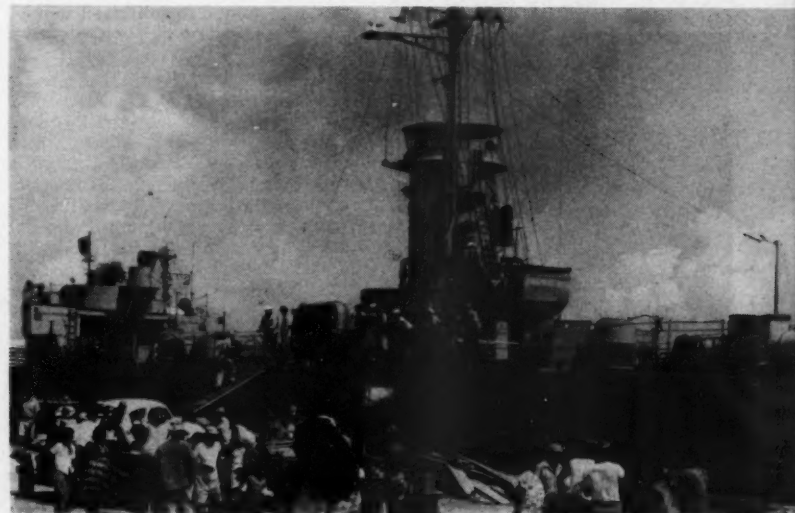
Also included in the medical team which accompanied the ship was an environmental sanitation technician who gave instruction concerning sanitation.

While serving in the Marianas, *448* became a familiar sight to all the inhabitants. Chances are, her skipper, LT. H. J. Beyers, and her crew will be remembered for as many years as the "Marianas Express" rests in mothballs. Her crew insists that, never once, did she fail to uphold her motto: "You name it—we haul it."

—James E. Janssen, JO3, USN.



STRANGE CARGO for a Navy ship, but *USS LSM 448* is a veteran of unusual journeys among Marianas. Below: She loads at Saipan for 10-day cruise.



LETTERS TO THE EDITOR

More Light on Ampere

SIR: In the August issue of ALL HANDS you published an article about USS *Mataco* (ATF 86) returning to San Diego after serving continuously for three years in the Western Pacific. What's so great about that? Three years is just a drop in the bucket, when you consider that the ship which I'm aboard left the states in 1950 and has been in the Far East ever since. She has never been back to the States nor is she currently scheduled to return.

In an earlier edition of your magazine, you published an article dealing with the importance of minesweepers and their job in "leading the Fleet." How can you say this and forget to mention my ship, which readies minesweepers so they can safely operate in waters infested with mines and other underwater explosives?

All ships sooner or later must go through a degaussing test and if necessary, be depermed. Not only does my ship do this, but it's the only ship in commission that is capable of deperming other ships up to and including destroyers while they are underway.

In addition, my ship is the only one in commission that is responsible for operating a shore establishment. I've never seen anything about this ship in your magazine and I think it's about time credit be given where credit is due.

If you haven't guessed by now what the name and primary job of this ship is, you must not be very well versed about USS *Ampere* (ADG 11). Why not let the Fleet in on this "well guarded secret?"—J.R.J., YNT3, USNR.

• *Wish we heard from more Navy-*

This section is open to unofficial communications from within the naval service on matters of general interest. However, it is not intended to conflict in any way with Navy Regulations regarding the forwarding of official mail through channels, nor is it to substitute for the policy of obtaining information from local commands in all possible instances. Do not send postage or return envelopes. Sign full name and address. Address letter to: Editor, ALL HANDS, Room 1809, Bureau of Naval Personnel, Navy Dept., Washington, D. C.

men who are as proud of their ships as you are of Ampere.

The importance of Ampere and the fact that she is the one and only degaussing vessel in commission IS NOT new to ALL HANDS. We know that Ampere exists, but your letter is the first information that we have received about her. In fact, OpNav does not have a copy of your ship's history on file. (OpNav Inst. 5750.7 requires ship's histories to be forwarded annually.)

Since you are so proud of Ampere, why don't you write more about her? We always welcome contributions.—ED.

Who Can Top Twenty?

SIR: You challenged anyone to show longer service than 17 years, nine months on one enlistment. I offer the following information. My original enlistment for four years was on 21 Oct 1933; reenlistment was on 26 Nov 1937; my enlistment was extended on 26 Nov 1941 for three years. On 15 Jun 1943 I was made a Warrant Officer and on 15 Mar 1944, a Chief Warrant Officer (temporary commission). I am now serving in a "dual status" as a commissioned officer and

enlisted man, so I am still serving on the reenlistment contract of 26 Nov 1937, which is a total of 18 years, seven months on reenlistment contract.—J. H. Littlejohn, LT, MSC, USN.

SIR: In June 1956 Taffrail Talk you asked anyone to beat the length of John B. Hessley with 17 years nine months time on one enlistment—well my commanding officer, a temporary lieutenant commander, can top that by having 20 years, one month and one day as of 27 Jun 1956 on his present enlistment. Here is how: He reenlisted on 27 May 1936 for four years; on 26 May 1940 he extended for three years; on 15 Mar 1943 he was issued a temporary commission as ensign.—D. N. Goad, YN2, USN.

SIR: In reference to Taffrail Talk of your June issue, I offer the following information concerning the length of my enlistment. I was enlisted for four years on 18 Feb 1936, extended for three years on 17 Feb 1940, and commissioned temporary Warrant Officer on 1 Nov 1942. I am still serving under my original enlistment contract, so far a total of twenty years and five months. I quote you, "Beat that, if you can."—G. C. Nyberg, LCDR, USN.

• On the subject of continuation of original enlistment contracts, it is pointed out that an individual could have extended his enlistment for as much as 4 years, giving him a total of 10 years on an original six-year enlistment contract. As the above cases show, an enlistment contract could be even further extended if an enlisted man accepted a temporary appointment to warrant or commissioned status. The enlistment would be continued until such time as he accepted a permanent appointment, or the enlistment was otherwise terminated.

Who can top 20?—ED.

We've Got a Hit on Our Hands

SIR: Just finished reading your August issue and find that your "Songs of the Sea" has that wonderful old ballad "Song of the Oarsmen." Well, I tell you now it has been a long time since I've heard that one, and a lot of salt water has washed under the bridge, as they say, but I still enjoy it and have been wondering where I could get the music for this fine old song? I don't care if it's hornpipe or hawsepipe just as long as I can play it on my barnacled old bassoon.

When I was a lad aboard USS *Constellation* we used to sing this old ditty after bedding down the salt pork and beans and setting the sails for



USS AMPERE (ADG 11), the only degaussing ship in commission, and only one capable of deperming a destroyer on the run, has been in Far East since 1950.

sunset, and it was always one of my favorites.

In recent years my hands have become shaky and I have been confined to my boatswain's chair, but LeRoy the cabin boy is writing this for me on his typewriter machine.

Hope that your future "Songs of the Sea" will be as august as your August progeny.—Briny Murphy.

• Thank you. For a long time we wondered if anyone ever bothered to read our "Songs of the Sea." Now, we can be sure our efforts do not go unused. Our sea chanteur editor, an eminent musicologist who twice won the International Grand Prix for uphill folk-dancing, was so pleased by your letter that he ran out and bought himself a brand-new electric banjo to celebrate the occasion.

According to him, "Song of the Oarsmen" is sung to the same tune as "The Fez on the Barroom Floor," with which you are no doubt familiar. This is the well-known Egyptian ballad which begins with the famous line, "A bunch of the boys were whooping it up on a barnacled old bassoon."

If it weren't for space limitations, we'd be happy to print the music here, but you can find the score in almost any library. The best arrangement is probably the one in "Songs for Balloon Launchings and Six-Day Bicycle Races," by Dr. Homer J. Rockenroll. Good hunting.

By the way, Mac, what's your service number? A quick check of our subscribers' list fails to show a single Briny Murphy among the 650,000 (more or less) names.—Ed.

It Just Goes to Show You

SIR: Consider the following information, then tell me if you can what caused the Bureau's change of heart: For purposes of transferring to the Fleet Reserve I completed seventeen years of service this past August, twelve of them as CPO. As far back as 1943 I requested—and was refused—electronics school and conversion to ETC. Similar requests were refused in 1946, 1947 and 1948—when, seemingly at least, ETs were critical and radiomen were plentiful.

Now it's my understanding from various publications that the radioman rating in recent days has been as critical as that of electronics technician. Yet I finally was ordered to the Electronics Officer's School at Great Lakes in September 1954, completed the course in September 1955, and had my rate changed from RMC to ETC. Then I was assigned to my present duties—a radioman's job if I ever saw one.

I'm grateful for that fine electronics training, of course, but it does seem to me that the Bureau picked a rather odd time to give me ET schooling and conversion.—W. M., ETC, USN.

• Not really so odd, Chief. You are one of several RMCs who were considered excellent candidates for selection to warrant officer status, and who (on that basis) were ordered to the Officer's Electronics Maintenance course, since this course would prepare them to assume duties as Warrant Electronics Technicians.

Although the selection board did not pick you for warrant status, the training you completed is equivalent to the present ET conversion course, so your request for change of rating was approved.

As for your assignment to radioman duties, that is a matter to be determined by your commanding officer.—Ed.

Biggest Ships in World War II

SIR: I heard that the Japanese had the world's largest carrier and battleship in World War II. Is this true? —B.B., JOI, USN.

• The Japanese Navy had a trio of giants in the water during at least a part of World War II that were among the largest ships ever built. They were Yamato, Musashi and Shiwano.

To quote Theodore Roscoe's Submarine: "Yamato, a 63,000-ton monster . . . and her twin sister Musashi, were the world's biggest battlewagons. There were to have been triplet giants, but the third behemoth, Shinano, was converted during construction into a 59,000-ton (standard displacement) aircraft carrier."

Shinano was commissioned on 18 Nov 1944—and sunk by USS Archer Fish (SS 311) on 29 Nov 1944 (just 11 days later) while on her way to a safe port for fitting out.

Super-battleship Yamato was bombed to extinction on the morning of 7 Apr 1945 in the East China Sea; Musashi capsized under a rain of explosives on 24 Oct 1944 during the Battle for Leyte Gulf.—Ed.

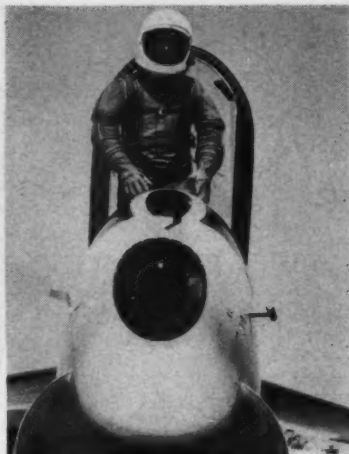
Higher Reenlistment Bonus

SIR: On 7 Feb 1954, the expiration date of an enlistment for four years, I extended for one year. At the end of that period I extended for one more year. Disbursing at NTC San Diego, Calif., combined the two one-year extensions and made a two-year extension of them. They paid me \$40.00 minus taxes, with no travel pay.

I reenlisted for six years on 7 Feb 1956 and received two thirds reenlistment pay. I was told the two one-year extensions constituted one enlistment and the enlistment for six years was my second enlistment.

Is it right that I should have received any pay for the two one-year extensions?—C.P.B., SK3, USN.

• In accordance with paragraph 044070-2, "NavCompt Manual," extensions can be added to count as reenlistments for the purpose of payment of a reenlistment bonus. The records



SAUCERMAN?—No, a pilot about to take off in F8U-1 Crusader to test new Navy high-altitude pressure suit.

of the Bureau of Naval Personnel show that you extended for one year on 7 Feb 1954 and again for one year on 7 Feb 1955. This constituted an enlistment of two years for which you were paid \$40.00 under section 207, Career Compensation Act of 1949. The payment of \$40.00 is proper.

However, the Comptroller General has stated that a member who reenlists after voluntarily extending his previous enlistment for two succeeding one-year periods under section 207 is entitled to a reenlistment bonus as for a first reenlistment. You should have received a reenlistment bonus computed as a first reenlistment on 7 Feb 1956.—Ed.

For Travelers into Outer Space

SIR: Could you please give me the answers to these questions about the Navy standard compass?

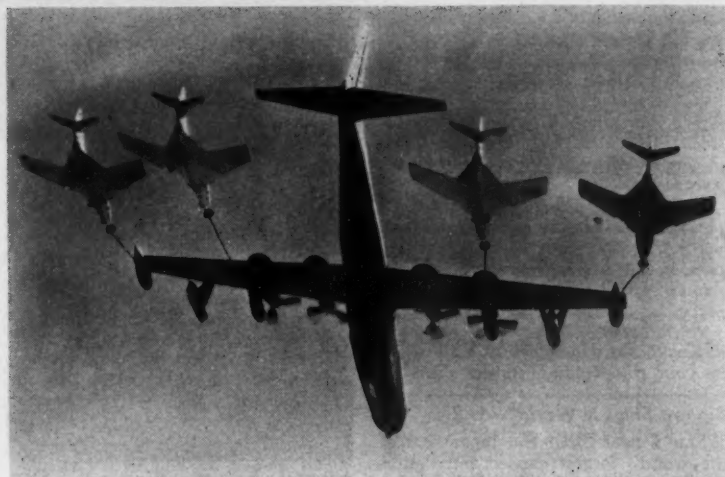
First: How does it behave in the Arctic and Antarctic?

Second: How would it act in space when leaving the earth's gravitational pull?—J. T., BMG1, USN (Ret).

• 1. As the standard magnetic compass is moved from the middle latitudes toward either of the poles, it enters an area where it begins to oscillate and become unreliable. When it gets closer the oscillation stops and the needle will come to rest wherever it is set.

In other words, if the needle is moved from one position to another it will not tend to return to the position it was in before.

2. Recorded observations have been made on altitude effects on the magnetic compass at heights up to 30,000 feet. These have shown that the curved lines of equal variation found on the earth's surface tend to become parallel lines out in space, similar to the lines



FUELING FOURSOME—First seaplane tanker, Navy's R3Y-2 Tradewind, to refuel four jets simultaneously, passes gas to F9F-8 Cougars high above Pacific.

of longitude on a chart. This would indicate that the earth is a perfect magnet.

It has also been proved that magnetic force diminishes in proportion to distance from the earth. Thus, in traveling into outer space a point would eventually be reached where magnetic force would finally and completely fade out, making a magnetic compass useless. Some other type of direction indicator would then have to be employed.

Before reaching that point, however, the procedures for correcting a compass in outer space remain the same as they are now. Only one correction for deviation (the angle between the magnetic meridian and the north to south axis of the compass card) would be made, because that is strictly a local condition.

If you're planning to move, be sure to notify us of your change of address.—E.D.

'Hypothetical' Date of Entry

SIR: Our disbursing officer uses what he calls a "hypothetical date" in computing my basic entry date. I don't get it. I know perfectly well the date on which I first enlisted. Nothing hypothetical about it. I believe that such should be figured on a day-to-day basis in relationship to actual service. Will you please explain proper procedure of figuring time for basic pay and clear up a lot of confusion aboard this ship.—R.L. McL, PN1, USN.

• You are correct in regard to figuring basic pay on a day-to-day basis, but when a man has broken service, then a "hypothetical date," if one wants to call it such, must be established in order to come up with a fixed date on which to figure basic pay.

In computing service for the purpose

of determining basic pay, individuals are credited with full-time (active and inactive) duty during all periods they were enlisted or held a commission in the armed forces or any of the components of the armed forces.

In the event of "lost time" that time is not included in determining cumulative years for basic pay purposes.

If a man has no former service computable for basic pay purposes, his basic pay entry date will be the day his active duty begins. As an example, if a man enlists in the Navy for the first time and reported for active duty on 28 Feb 1956 his basic pay entry date would be 28 Feb 1956.

If he had prior service creditable for basic pay purposes, his basic pay entry date would be a "hypothetical date." This would be established by deducting the total amount of his former service from the date which his current service commenced.

As an example, we'll take the case of an individual who was on active duty from 16 Jan 1940 to 25 Jan 1946. During that period he had eight days' lost time for being AWOL. On 13 Aug 1946 he again signed up for a two-year hitch and remained on active duty until 12 Aug 1948. During that time he had 22 days of lost time due to hospitalization from misconduct. On 25 Sep 1950 he joined the Naval Reserve but remained on inactive duty until his discharge on 11 Aug 1953. He then was not affiliated with the military again until he enlisted in the Navy and went on active duty on 28 Feb 1956.

In order to determine his basic pay you would have to figure out a "hypothetical date." This would be done by compiling all of his former service. That would give him a total of 10 years, nine months and 27 days. These

figures include the two years, 10 months, and 17 days in which he was an inactive member of the Naval Reserve, and deductions for the total of 30 days' "lost time."

Deducting his total creditable service, 10-9-27 (years, months and days) from the date he began his current enlistment, 56-2-28 (year, month, day) you come up with the figure of 45-5-1. This would represent the "hypothetical" date of 1 May 1945. That date would be the basic pay entry date on which his pay would be figured. Therefore his basic pay at the time of entering the Navy on 28 Feb 1956 would be based on 10 years' service and on 1 May 1957 he would start drawing pay based on 12 years' service.—E.D.

ECC Assignment Booklets

SIR: There is a difference of interpretation within this command as to what is to be done with the assignment booklet issued with Enlisted Correspondence Courses upon completion of the course. The particular type correspondence course in question is based on a Navy Training Course which must be completed before competing in the service-wide examination for advancement in rating.

Some seem to think that under the new system the assignment booklet is to be returned to the correspondence course center with the texts, others hold that they may be retained by the individual completing the course, as in the past.

It would be greatly appreciated if you could get a clarification on this for us, since the question booklet is a very handy thing to have around, especially when it comes time to study for examinations.—J. L. H., PN1, USN.

• Enlisted men on active duty enrolled in correspondence courses under the provision of BuPers Inst. 1510.67 of 16 Feb 1956 may retain the assignment booklets when needed for study in preparation for advancement in rating examinations. It is the privilege of the command to decide when the course has been completed and when study material is to be destroyed. The assignment booklets need not be returned to the Correspondence Course Center, but the basic texts (Navy Training Courses) must be.—E.D.

Shoulder Marks

SIR: With reference to the change-over from the officer's blue raincoat to the new type overcoat, there is a question which comes to my mind concerning the shoulder insignia. The metal insignie prescribed for the raincoat is waterproof. Has the Uniform Board come up with specifications for a weatherproof shoulder mark to be worn with the overcoat?—M. L. McC., LCDR, USN.

• Don't worry about it. Shoulder marks made in accordance with exist-

ing specifications have been tested by water immersion and exposure to alternate salt water spray and high intensity artificial sunlight. Except for normal tarnishing of gold, these tests have proved that all components are reasonably weatherproof. Therefore, you should have no trouble with your shoulder marks when wearing them on your overcoat in bad weather.—Ed.

Deck Logs

SM: I have a question on the deck logs. I have searched all available instructions and can't find the answer. What is the proper method to use in numbering the pages of the deck log?—R. E. R., YN1, USN.

• Search no more, friend. There is no proper way. Requirements for numbering deck log pages were discontinued on 1 Jul 1955. Before this date, log pages were numbered in consecutive order throughout the accumulation of log pages for the calendar year, commencing with the first day's log page of the calendar year, and ending with the final day's log page of the calendar year.—Ed.

Applying for LDO

SM: In July 1955 I applied for a commission under the LDO program. Since that was the second time I applied, I did not try again in March '56. Am I eligible to apply again under the officer procurement program for Fiscal '57? Can you tell me if I passed the LDO exam I took in 1955?—C.J.S., AD1, USN.

• Under BuPers Inst. 1120.18C personnel are now authorized to apply for Limited Duty Officer status as many times as they consider themselves qualified. Personnel who have applied twice and were not selected can reapply as many times as they desire as long as they meet the necessary requirements.

The examinations for LDO selection, which have been revised and are now given annually, have no set passing or failing grade. An individual's outcome is determined by his relative standing among all candidates who took the exam and, as indicated in BuPers Inst. 1120.18C, a cutting score will be established by the Chief of Naval Personnel. All above the established cutting score will be presented to a formal selection board convened by the Secretary of the Navy. Your score would mean nothing to you unless you could compare it with the scores of all other candidates. In order to eliminate any possible misunderstandings of raw scores, it is the policy not to divulge the results of the examinations.—Ed.

Ship Reunions

News of reunions of ships and organizations will be carried in this column from time to time. In planning a reunion, best results will be obtained by notifying the Editor, All HANDS Magazine, Room 1809, Bureau of Naval Personnel, Navy Department, Washington 25, D. C., four months in advance.

• *uss Tulagi* (CVE 72)—The second annual reunion is planned for early July 1957, at Coronado, Calif. All former officers may contact Dr. F. A. Holden, Medical Arts Bldg., Baltimore 1, Md.

• *uss McCormick* (DD 223)—All former crew members and officers who are interested in holding a reunion, with time and place to be decided by mutual consent, write to Arthur Mailman, 55 Nichols Street, Gardner, Mass.

• *uss Thuban* (AKA 19)—Former shipmates interested in attending a reunion, with time and place to be

decided by mutual consent, contact CDR Joseph L. Hopkins, 270 Broadway, New York 7, N. Y.

• *Underwater Demolition Teams*—A reunion is being planned for all UDT personnel, past and present, at a time and place to be agreed on by mutual consent. For further information you may write to Donald F. Arveson, 403 Valley National Bldg., Tucson, Ariz.

• *uss Abatan* (AW 4)—Crew members and officers interested in holding a reunion on 9 Feb 1957 in New York City, may get in touch with John Shad, 225 Fourth Avenue, New York 3, N. Y.

• *uss Arizona* (BB 39)—Former crew members who are interested in holding a reunion, with time and place to be decided by mutual consent, write to William E. Larsen, 4019 W. 176th Street, Torrance, Calif.

Tropical Uniform

SM: The recent change to U. S. Navy Uniform Regulations concerning the use of tropical uniforms has been most welcome in the tropics. As you know, tropical uniforms are more comfortable and practical. In our area, the wearing of combination caps for officers and CPOs is preferred because these caps are dressier and are more military in appearance. Combination caps, however, are uncomfortable owing to the prevailing humidity. In regard to this cap, would you please inform me on the following: Uniform Regulations do not mention eyelets in describing cap covers. Does this imply that they are not authorized? Could the use of eyelets, similar to those on U. S. Marine Corps cap covers, be authorized?

Eyelets provide ventilation and circulate air inside the cap. Together with perforated sweat bands, they result in more comfort and still retain enough warm air when used in cool or temperate climate to be practical.—S.M.G., YNCA, USN.

• As you state in your letter, the tropical uniform is a very comfortable and practical uniform, and the combination cap is dressier and more military in appearance than the tropical helmet. In fact, the basic reason for the tropical uniform is comfort in warm climates while at the same time retaining as smart a military appearance as possible.

Eyelets are not prescribed in naval cap covers. Inasmuch as the cap covers permit air to enter, the added comfort received from eyelets is questionable. In addition to the combination cap and the tropical helmet, in the near future the khaki garrison cap will be authorized for wear with the khaki tropical uniform.—Ed.

Amount of Retainer Pay

SM: I requested transfer to the Fleet Reserve upon completion of 19 years and six months' service. At that time my rate was BT1. Since then I have advanced in rate to BTCA.

Will the retainer pay that I receive be for first class or chief, even though it is an acting appointment?—A.B., BTCA, USN.

• If you hold the rate of BTCA on the date of your transfer to the Fleet Reserve, retainer pay will be based on the rate. There is no difference in the basic pay of CPO (permanent appointment) and CPO (acting appointment) under the Career Compensation Act of 1949.—Ed.

Slide Rules Used in Exams

SM: NavPers 15828B states that slide rules may be used on examinations for advancement in rating. Does this mean any type of slide rule, such as a Medical Slide Rule?—W. L. J., HM2, USN.

• No. The slide rule authorized by the "Instructions For The Administration Of Examinations For Advancement To Pay Grades E-4, E-5, E-6, and E-7" (NavPers 15828B) is a conventional instrument used to perform simple multiplications and divisions. Since it is an aid which speeds up routine calculations, it is authorized for use during the service-wide exams. The "Medical Slide Rule" is assumed to be an instrument used to convert grams to grains, etc. Since this device has built into it the conversion factors required to make the computation, it is not a device that performs only simple multiplication and division. In effect it provides information that an individual might be asked on the examination. For this reason it is not authorized for use in the service-wide competitive examinations.—Ed.

Forrestal Facts

SIR: Can you tell me where *uss Forrestal* (CVA 59) was built, when she was commissioned, and whether she is the biggest ship afloat today?—A. J. SD3, USN.

SIR: I have read that *uss Forrestal* is the biggest ship ever built, but I have also read that *uss Saratoga* (CVA 60) is the biggest. Undoubtedly both of them are big, but I wonder if they are the same size.—N. G. S., SN, USN.

• *Forrestal-class carriers are certainly the largest ships afloat today, but Forrestal herself is not quite the largest of the class. All ships of the class are listed with a beam of 252 feet, that being the extreme width of the flight deck. While the length for the class is listed by Jane's Fighting*

*Ships as 1036 feet, Forrestal and Saratoga actually measure 1039—while *uss Ranger* (CVA 61) has an over-all length just a couple of inches short of 1046 feet. The builders point out that the increase in length was caused —after Forrestal was well underway —by an increase in the angled-deck design which resulted in an extension of the flight deck's after section.*

Full load displacement for the vessels is expected to be in the neighborhood of 76,000 tons.

Both Forrestal and Ranger were built by the Newport News (Va.) Ship Building and Dry Dock Company, while Saratoga was built by the New York Naval Shipyard. Forrestal was commissioned on 1 Oct 1955.—Ed.

Into Mothballs

SIR: I would like to have any information you can give me about *uss Wilkes-Barre* (CL 103) since 31 Jan 1946.—R. D., Lockport, N. Y.

• *After 31 Jan 1946 Wilkes-Barre served with the Fleet during training cruises in Guantanamo and on a goodwill cruise to England and Norway. On 9 Oct 1947, she was placed out of commission in reserve at Philadelphia, as part of the Atlantic Reserve Fleet.*—Ed.

Officer Promotion

SIR: AINav 100, back in December 1955, listed my name among those selected for promotion to the rank of lieutenant. A board of medical examiners found me physically qualified for temporary promotion while a supervisory examining board early in 1956 found that I met the professional requirements, by virtue of correspond-

ence courses completed in all required subjects.

Since then I have had no word on my appointment, although several of my contemporaries (many of whom are junior to me on the lineal list) have already received their appointments.

Can you tell me by what method of priority the appointments are being issued and if the date of issue affects an officer's standing on the lineal list?—H. R. G., LTJG, USN.

• *An officer selected for promotion in fiscal 1956 cannot be promoted until (1) a vacancy has occurred for him in the next grade; (2) his professional qualification has been established by the Naval Examining Board; and (3) his physical qualification has been established by a formal Board of Medical Examiners.*

While officers are promoted as they qualify, their new lineal positions in the higher grade are the same as their

lineal order on the promotion list announcing their selection. Therefore, an officer who is slow to qualify does not lose any precedence.

In your own case, a vacancy occurred for you on 1 Sep 1955, but you were not deemed qualified until 23 Jul 1956. Since then, of course, you have been notified of your appointment to lieutenant.—Ed.

In Reserve, In Commission

SIR: In the August 1956 issue of *ALL HANDS*, you stated that *uss Antietam* (CVS 36) spent a short period in mothballs in early 1952. I was attached to *Antietam* in 1952, and I didn't notice she was in mothballs at that time. How about it?—W. J. J., LT(DC), USN.

• *You are correct. Antietam was in commission, in reserve (Res/IC), from 15 May 1952 until 15 Jan 1954. She has not been placed out of commission since early 1951 when she was recommissioned. Our writer made a very liberal interpretation of the term in commission, in reserve.*—Ed.

National Defense Service Medal

SIR: I would like to settle an argument that has been going on for some time over many cups of coffee. According to BuPers Inst. 1650.3 members of the armed forces who served during any period from 27 Jun 1950 to a terminal date to be announced later are entitled to wear the National Defense Service Medal. Has the terminal date been announced yet, or does anyone coming on active duty rate the National Defense Service Medal?—F. D. D., PN3, USN.

• *Sit back and enjoy your coffee, all has been decided. The cutoff date for the National Defense Service Medal was 27 Jul 1954. Anyone who entered on active duty after that date is ineligible to receive this medal.*—Ed.

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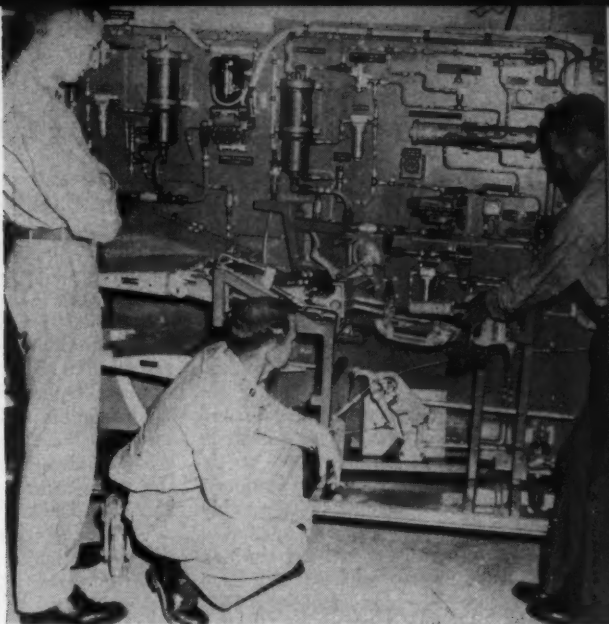
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Looking for Trouble

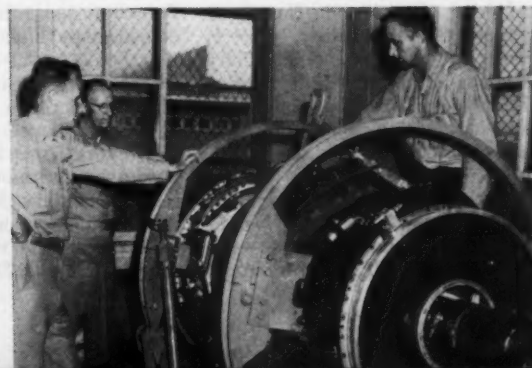
LEARNING TO REPAIR sections of a fuselage and overhauling the various systems of an airplane before actually seeing it sounds like something out of science fiction. However, fighter pilots and crewmen of First Marine Aircraft Wing are doing just this by way of instructions from white hats at NAS Atsugi, Japan.

The airmen are being squared away on the FJ-4 *Fury* which will soon replace their FJ-2 models. This is being accomplished by a Navy Maintenance Training Unit which brings to the field the latest maintenance techniques. The unit demonstrates the operation of various systems of the plane by the use of mock-ups, cut-aways, panels, slides and charts. By sending training units like these to the Fleet the Navy saves time and money.

Both pilots and aircrewmembers are learning the FJ-4 from the inside out, and when the *Furies* roar into Atsugi the Marines will be ready and waiting for them.

Top Left: C.C. Ulsh, AE1, usn, repairs rectifier. *Top Right:* Marines get the word on the operation of control panel from J. A. Jones, AM1, usn. *Top Center:* Mock-up explains FJ-4 ejection seat. *Lower Center:* Cut away shows brake system. *Lower Right:* L. L. Casper, AD1, usn, explains jet engine to Leathernecks. *Lower Left:* Navy instructor discusses landing gear of *Fury*.

—Henry D. Morrow Jc, USN



The Search for Bergy Bits and Growlers

Bergy bits and growlers, ropaki and sikussak are terms which cut no ice with most Navymen—but they're old friends to Navy aerographer's mates who have pulled duty in the far north as aerial ice observers, or completed the Class C Ice Observers course at Lakehurst, and to the men who have sailed the icebreakers and supply ships which support U. S. Military installations along the frigid Arctic rim of the North American Continent.

The first two terms mentioned here denote fragments of ice roughly the size of a small cottage and a grand piano, respectively. *Ropaki* are pinnacles or slabs of ice which have been forced by pressure to stand on edge, and *sikussak* is very old sea ice trapped in fiords. They are just four members of a large group of words and symbols used to tell anyone who's interested "what's what" in the ice-cluttered waters through which shipping must pass in order to supply the settlements and military installations from Northern Alaska to Newfoundland and Greenland.

Not so long ago, a skipper taking his ship into extreme northern waters could be expected to know little about the conditions encountered except that "ice is where you find it." The wise skipper steamed with great care and kept ice lookouts posted at his masthead; other ships perhaps had a helicopter on board for spotting a likely course through the ice, or an icebreaker to lead the way.

Nowadays, the skipper taking a Navy or an MSTC ship into the seas around Alaska, Canada's Northwest Territories or Newfoundland, does not go in "blind"—he has a complete weather- and ice-forecasting service to tell him what to expect, plus aerial ice observers to help him find his way through the ice fields.

Although Navymen have been conducting operations in the Arctic for more than a century, only in recent years have expanded military operations in the Far North required full-time attention to the problems of employing fighting ships and men in arctic areas. Small-scale operations, mostly in connection with weather and sealing stations, were carried forward from World War II until 1951. Then Operation Bluejay—the establishment of Thule Air Force

Base, Greenland,—got underway, forming a high point in cold weather operation.

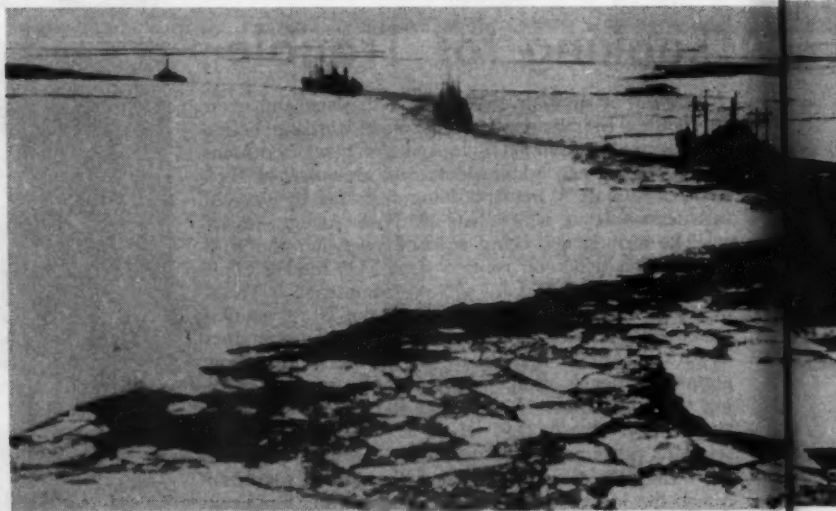
While Bluejay was still in the planning stage, however, the Navy began work in earnest on plans for minimizing ice damage to arctic shipping. Conferences between representatives of the Office of the Chief of Naval Operations, the U. S. Navy Hydrographic Office and the Military Sea Transportation Service laid the groundwork for establishment of the Navy's first Aerial Ice Reconnaissance Units.

Civilian representatives of the Hydrographic Office (or "Hydro") began informal ice reconnaissance

too, techniques of aerial ice observing and symbols for presenting ice data were also developed.

Late in 1953 the first Navy enlisted men were assigned as aerial ice observers. The 14 aerographer's mates selected for the program were ordered to the Hydrographic Office in Suitland, Md., for eight weeks of intensive training before being assigned to the field in March 1954.

Men at Hydro who had learned much of their ice observing in the hard school of experience were the teachers of such subjects as Physical Geography of the Arctic, History of Exploration, Ice Codes and Symbols, Distribution of Sea Ice, Ice Fore-



casts in 1950. In addition to supporting Bluejay in 1951, Hydro's observers furnished extensive support to ships engaged in Operation Sunac (Support of North Atlantic Construction) in 1952 and to similar shipping during the 1953 arctic shipping season. In the 1951 operation, the Air Force's 6th Air Rescue Squadron took a hand in the ice reconnaissance flights; during Operation Sunac naval aircraft from the Atlantic Fleet carried both Fleet and Hydrographic Office observers on reconnaissance flights.

The first-hand knowledge of ice conditions and movement gained in these operations insured successful delivery of thousand of tons of supplies during the two 45-to-60 day shipping seasons. During this period,

Ice Seamanship, Field Work Procedures, Military Aspects of Arctic Operations, Aerial Ice Observing Techniques, and Reporting Procedures.

Also included in the course was a training flight actually to observe ice conditions in the Labrador Sea.

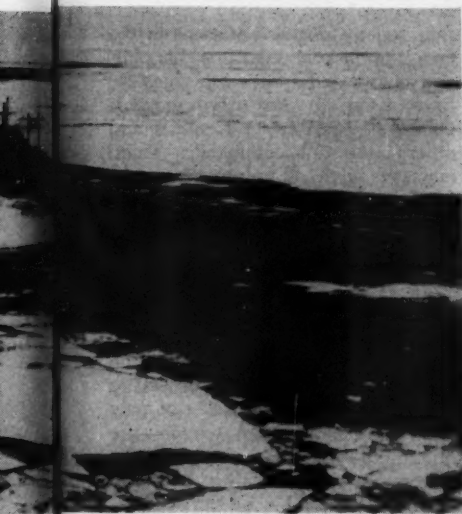
While this first group of AGs was on duty in the Arctic during the 1954 shipping season, volunteers were requested for the 1955 season and in January of that year 19 aerographer's mates reported to Hydro for training. Upon completion of the course in March 1955, these observers were formed into two reconnaissance units and assigned to Fleet Weather Centrals at Argentina, Newfoundland, and Kodiak, Alaska.

With the primary mission of re-

nd Growlers

porting ice data to designated commanders in support of ships engaged in Operation Sunec, a "recco" unit was established at Argentia and observers were detached to stations in the field. While the Argentia headquarters handled administrative and planning details and coordinated the disposition of observers, the observers themselves insured that the unit's mission was performed with outstanding efficiency.

Stationed at Goose Air Force Base, Labrador; Frobisher Bay, Northwest Territories; and Thule Air Force Base, Greenland; with occasional operation from Air Force bases at Sondrestrom and Narasarsuaq, Green-



land, the observers had their job worked down to a definite pattern by the first of June.

Each detachment had been assigned a specific area of responsibility to conduct aerial ice reconnaissance flights. During these flights, ice data and ice information was plotted on chart form and, in turn, ice messages were prepared and distributed to appropriate field commands and to the U. S. Navy Hydrographic Office for ice forecasting purposes. Frequently, the ice observers provide tactical ice summary information directly to a ship's skipper during ice reconnaissance flights.

During the 1954-55 season observers operating with the unit at Argentia spent nearly five thousand hours in flight, supporting Sunec.



FLYING HIGH over Arctic, Navy ice observers gather information on frozen waters below. Info will assist passage of ships headed for ice-bound bases.

On the Alaskan side, four aerographer's mates were assigned to Fleet Weather Central, Kodiak, for duty in 1954. In 1955, for the "Mona Lisa" (resupply of U. S. Bases) and "Project 572" (DEW Line supply) operations, five graduates of Hydro's ice course were assigned to Kodiak, and the operation of this aerial ice reconnaissance unit is fairly typical of such operations on both coasts.

Upon completing their studies at Hydro the AGs reported to Kodiak in April to begin observations. At first, two flights a week were made over the ice-bound Bering Sea and along the southern edge of the ice pack. As the spring break-up progressed, longer flights were made into the pack proper and occasionally along the northern coast of Alaska.

On 1 Jul 1955, a single ice observer went from Kodiak to Point Barrow where (with the help of two UF-1Gs from FASRon 114) he provided close support to shipping in the area. As the ice continued to recede, three additional observers and two civilian forecasters set up shop at Ladd Air Force Base, Fairbanks, receiving support from Kodiak's VP-2 squadron.

By late July both detachments in Alaska were flying daily, covering the coastal areas around Alaska and the north Canadian coast. At the completion of each day's flight, ice data and the charts marked by the observer while in the air were turned

over to Hydro's forecaster for transmission by radio and facsimile radiophoto. These transmissions, covering both observed and forecast conditions, were available to ships in the area and to the long-range forecasters at Hydro's home office. This routine continued until the summer resupply operations were completed.

During the period, the five observers assigned to Kodiak racked up nearly 1400 hours of flying time.

And don't confuse "racked up" with "racked out." While the men assigned to ice observation duties have a "slack" season, the varied tasks required keep them pretty busy during an 18-month tour of duty. With the coming of the northern spring, observers keep an eye on the ice breakup, continuously plotting the southern limits of the ice pack and any changes within the pack itself; keeping track of such features as cracks and leads, topographical features and age of the ice, snow cover and any other information which may be of interest to Hydro's ice forecasters and to ships planning to enter the area.

Before taking off on a reconnaissance flight, the duty observer receives a briefing from the man who made the last flight, checks the weather and surface charts for information on probable movement of the ice due to winds and currents, and gathers his plot gear and charts.

As the observers at Argentia have



ICE OBSERVATIONS from patrol are recorded on charts with special signs and symbols for types of formations.

found out, "ice reconnaissance flights, by the very nature of their mission, are tedious and demand exacting performance from both the observer and the plane crew. An average flight lasts about seven hours, but it is not unusual for flights to continue for as long as 11 or 12 hours—frequently under conditions which make observing almost impossible. Area coverage for each flight ranges from 75,000 square miles to 150,000 square miles, depending upon the amount of data required."

P2V-type aircraft, fitted with a plastic glass nose, are most popular for reconnaissance flights, since the specially-modified bow provides the observer with an excellent platform

for observing, as well as ample room for charts and other material. The range and adaptability of P2V types are also excellent for ice reconnaissance. Other planes which have been used by Navy observers include the R4D and UFs. Canadian ice reconnaissance crews operating nearer the "center" of the continental land mass at Resolute Bay, N. W. T., use Lancaster-type planes for their flights.

During the "big" summer season and on into the fall, long-range flights continue, while shorter range tactical flights offer close support to ships moving into and out of the area. In addition to observing the ice, and transmitting any tactical information

required by shipping present in the area, the observer continues his plots and charts and writes messages for transmission to the Hydrographic Office, Fleet Weather Centrals and other interested commands. These messages give all information concerning the disposition of ice, its concentration and any changes occurring since the last flight.

In the fall, after the ships are clear of the heavier ice concentrations, tactical support flights decrease sharply, but longer-range flights continue, with the observer tracking the ice pack southward and observing and recording the formation of new ice. Throughout the winter—the "minimum operating period"—observers have fewer duties, but they still keep a sharp eye on the continuing freeze-up and maintain an accurate plot of the southern edge of the ice.

This slack period is also used to provide the observers with leave periods, and to conduct sessions in new ice reporting techniques, prepare special reports and papers on various aspects of ice observing, and to conduct discussions on recommendations for improving the service. Observers may also be assigned to special projects in which ice data is a consideration.

Methods used and data collected during 1953 differed somewhat from those stressed by ice reconnaissance teams in 1954, 1955 and 1956, yet the three-fold mission of ice reconnaissance remains the same:

- To assist in furnishing a comprehensive summary of existing ice

ICE IS WHERE YOU FIND IT is no longer the watchword of Northern skippers. Now ice recon units furnish ships like USS *Atka* (AGB 3) with advanced word.



conditions to the Hydrographic Office prior to the operating season. In turn, this information is used by the Hydrographic Office with other related oceanographic data and meteorological data to formulate the Long-Range Ice Outlook which is issued annually.

- To furnish direct (or tactical) support to icebreakers or convoys transiting ice while such ships are seeking out the best approaches or transit routes through the ice.

- To furnish quick ice information to be used as a basis for ice forecasting (a service which Navy's Hydro has been providing to arctic shipping since 1952 and which is becoming more important each year).

The changes in technique, equipment used and data collected reflect the Navy's expanding knowledge of arctic ice and weather, as well as increasing know-how of successful operation in the extreme conditions prevailing in such little-traveled areas as the Chuckchee and Beaufort Seas, Baffin Bay and Foxe Basin. Advancing knowledge and expanding requirements of arctic operation are reflected, too, in the Ice Observer Course.

The Class C Ice Observer Course taught by the Naval Air Technical Training Unit at NAS Lakehurst, N. J., is open to Navymen who have attained aerographer's mate third class or above, and who have 18 months of obligated service from the date of entry into school. Trainees must be able to recognize and record types and characteristics of land and sea ice; acquire a knowledge of and the ability to use ice terminology, symbols and codes; be able to interpret and prepare ice distribution charts and ice messages and reports; become familiar with the geography of the Arctic and Antarctic regions; and acquire a basic knowledge of the behavior and distribution of land and sea ice and the meteorological and oceanographic factors affecting it.

The curriculum at the school is broken into three parts:

- *Ice Observations.* This phase includes arctic observation techniques and equipment, military operations, ice seamanship, survival, ice terminology and identification, sea ice, land ice, and oceanographic data.

- *Observational Records and Reports.* This portion of the course surveys the methods for recording and distributing ice data, and includes ice distribution charts, messages and reports, and track charts.



NAVY 'ICE MAN' briefs crew of P2V Neptune on the frozen area to be checked before start of ice patrol flight from NAS Argentia, Newfoundland.

- *Distribution of Sea Ice.* This phase covers both general and regional ice distribution, the behavior of sea ice, and the physical geography of both the Arctic and Antarctic.

Aerographer's mates may submit a routine request for the ice observer's school, but must pass a stiff "flight physical" before being accepted for the intensive five-week course. AGs who complete the schooling will be assigned to either the reconnaissance unit at Argentia (currently allowed 18 men) or the one at Kodiak (allowed eight men), and they will find the work exacting, the hours long.

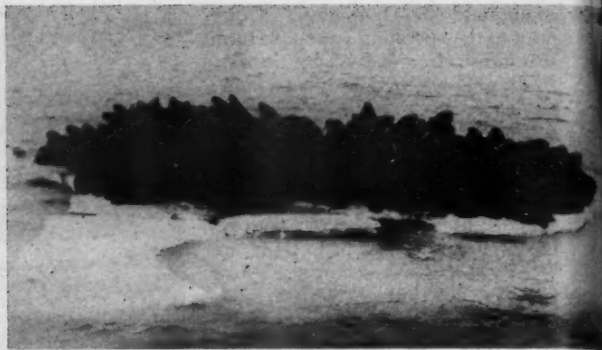
The pay (with "flight skins") is good; the liberty, unless you're a brownbagger or a sportsman, is pretty much limited to the movies, clubs and other diversions common to military stations—a good chance to save money.

But perhaps even more important, the men who become ice observers are aware that they have joined a select group of Navymen—they work with the assurance that the jobs they do daily are contributing knowledge of lasting value to both the Navy and the nation.

—Barney Baugh, JO1, USN

COMPARING NOTES — Ice reconnaissance teams check latest charts on ice conditions and pass the word on their observations to complete the picture.





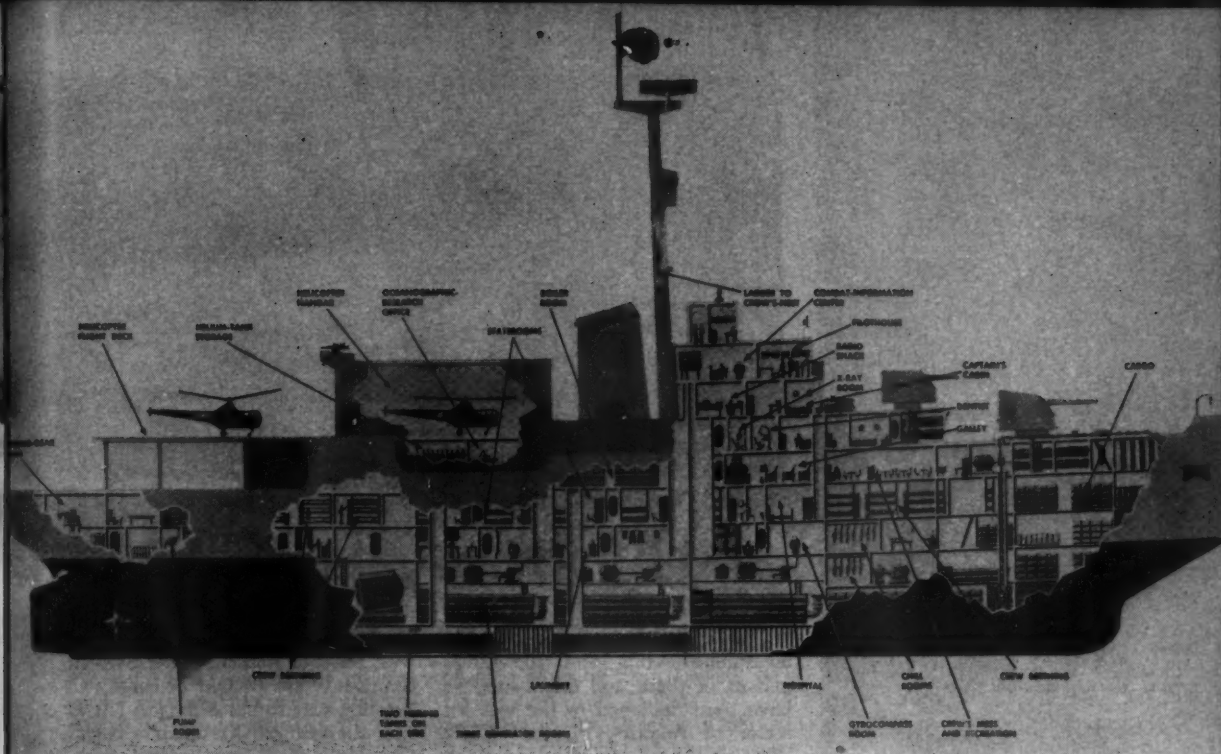
Ice 'Bound' Animals

THE ANIMAL KINGDOM has its nautical minded members who like to cruise where the going is rough in the frozen waters of polar regions. To Navymen, sailing in these icy seas or flying over the area on ice recon missions, these animals make a strange and interesting break in otherwise routine observations of ice, weather, and water.

Here is a photographic "zoo" of frosty critters captured by alert Navy photogs as their ship made passage through arctic or antarctic waters.

Top Right: walrus riding an ice floe seem as surprised at the passing of *uss Burton Island (AGB 1)* as the Navymen are in seeing this strange sight. *Top Left:* penguin tries to stare down Navy photog while guarding baby in rock nest. *Left:* Weddell seal is bored with visit of sailors interrupting her sunbathing on ice at Bay of Whales. *Lower Left:* friendliest of sea critters is the porpoise who becomes quite chummy with Navymen. *Lower Right:* polar bears swimming far from land are often encountered by ships in Arctic.





Ice Bounding Ship

ICEBREAKERS, the blocking backs for Navy ships in frozen seas, crash the ice barriers for ships carrying the ball on polar missions. Latest to join the fleet of salty ice crushers was *uss Glacier* (AGB 4). She has tested her sturdy hull and bag of tricks against the frozen might of Antarctica, helping to clear the way for Operation Deepfreeze.

Top: Diagram shows interior of the latest in AGBs.

Right: *uss Glacier* heads to sea in smooth water. *Below:* Today's icebreakers use helicopters to scout best spot to tackle the ice for a break through.





THROUGH CENTER—USS *Atka* (AGB 3) crashes through ice concentration (left) running

U.S. Navy Helps Stock DE

BEANS, BACON, BULK OIL, building materials—more than 30,000 measurement tons and 10,000,000 gallons of these and other supplies have been delivered to the western sector of America's Distant Early Warning radar network, despite the hazards of ice and weather and the extremely short Arctic shipping season.

This gigantic job of resupplying DEW Line's western area for another year was accomplished by the Navy's Military Sea Transportation Service and some 1650 specialists of the Army's Transportation Corps—with a lot of cooperation between "the governments of the United States and Canada, between the Navy, Army, Air Force and Coast Guard, between private business and the military, and between various elements of MSTs and the Merchant Marine."

Ice, snow, sleet, fog and gale-force winds were among the major hazards faced by the 56-ship Navy task group in delivering supplies to a sector of DEW Line which extends for nearly 2000 miles across the barren arctic tundra.

Months of extensive preparation preceded the departure of the task group. Beginning in the early spring, both Navy and commercial shipyards were put to work sheathing and adding internal strengthening to the hulls of cargo ships.

Nearly all ships were fitted with extra-strong alloy propellers designed to resist the tough Arctic ice. Personnel were issued heavy arctic clothing and stores and equipment were taken aboard.

Late in July the ships left West

Coast ports in several increments and formed into a single convoy off the west coast of Alaska. Under over-all command of RADM George C. Towner, usn, in *uss Eldorado* (AGC 11), the resupply group then began the most difficult part of the operation: waiting for favorable leads to open in the ice, waiting for ice-breakers to work stranded ships loose, waiting for the weather to break so off-loading could proceed, and finally, waiting for a chance to break through the ice pack at Point Barrow.

Ice—as always—was the most serious hazard for ships in the area. Melting of the single-season "winter" ice allows for narrow leads in the Arctic Ocean and in Canada's winding waterways during the short summer "shipping season." The pack ice recedes during August and September just far enough for shallow draft ships to forge around the northwest tip of Alaska and into Canada's northern waterways. At any time, however, a sudden change of wind can compress large masses of solid pack ice nearby, blocking the route. Usable openings in the ice ahead of the convoy had to be spotted and transited before a shift in wind blew them shut again.

DEW Line's western resupply area was divided into five operating zones extending from Cape Lisburne on the West Coast of Alaska eastward to Shepherd Bay, 200 miles north of Hudson Bay.

A separate task unit, carrying its own landing craft, special cargo handling equipment and personnel, and guided by an icebreaker, helicopters and aerial ice observers,

ALL HANDS



interference for cargo ships and tankers making passage to carry supplies to DEW Line.

DEW Line's 'Deepfreeze'

headed into each of the areas, while flagship *Eldorado* remained at anchor in the Point Barrow area to serve as a command and communications center for relaying information and coordinating ship movements.

To reach an objective a group of ships and their icebreaker escort frequently were committed to a zig-zag course.

Sometimes it was necessary to steam miles out of the way to find a favorable lead, only to be blocked at its end for hours or days by solid concentrations of ice.

The off-loading sites for which the five supply groups were headed are monotonously the same—flat, spongy, treeless tundra which seldom rises more than a few feet above the water level. The Arctic's summer sky often grays in above the dull half-melted snow, graduating into a barely definable haze.

Fog drifts in and out regularly, while periodic snow and sleet storms and cutting winds add to the supply task. Multitudes of mosquitoes are a constant plague to the cargo-handling personnel, and even the warmly-dressed Eskimos are annoyed by the millions of insects which inhabit the marshy tundra.

Time was of paramount importance, so the task units which had to steam the longest distance were the first to leave the parent convoy. As each unit arrived at the DEW Line sites, off-loading commenced immediately, and continued on a 24-hour-a-day basis until the last boxes and barrels were ashore.

Supplies consisted mostly of general cargo, construction material,

electronic equipment and petroleum products either in bulk or in drums. Bulk petroleum was discharged by offshore pipeline from tankers and LSTs.

Owing to the absence of normal berthing facilities, off-loading was largely amphibious, while none of the cargo ships going east of Point Barrow drew more than 16 feet of water. Ships of deeper draft have trouble, since furrowing action of the ice causes water depth to vary from year

ICE WATCH—Attired in Arctic gear lookout aboard *USS Eldorado* (AGC 11) watches for danger in overcast.

to year. To top everything, in many places dirt inclines had to be bulldozed up to the bow ramps of landing ships in order to facilitate off-loading.

Involved in the MSTs-led supply operation were commissioned Navy

POWERFUL PROPELLERS of Navy icebreaker, *USS Staten Island* (AGB5) open a lead in ice for surveying ship *USS Requisite* (AGB 18) to follow through.





OFF-LOADING was largely amphibious with LSDs like USS *Thomaston* (LSD 28) furnishing the landing craft.



ships; U. S. naval ships assigned to MSTs and manned by civil service crews; and ships of the Maritime Administration being operated by commercial shipping agents for the Navy and manned by members of the merchant marine.

Navy commissioned craft included LSTs and LSDs carrying landing craft for use in off-loading supplies at the DEW Line sites. Most of the cargo ships and tankers were either MSTs or Maritime Administration ships, while both Navy and Coast Guard breakers were employed to run interference through the ice.

Ship casualties during the hazardous operation were mostly of a minor nature, with the icebreaker *Burton Island* (AGB 1) shearing off two of her propeller blades while backing out of an ice floe, and approximately 40 other ships sustaining damage

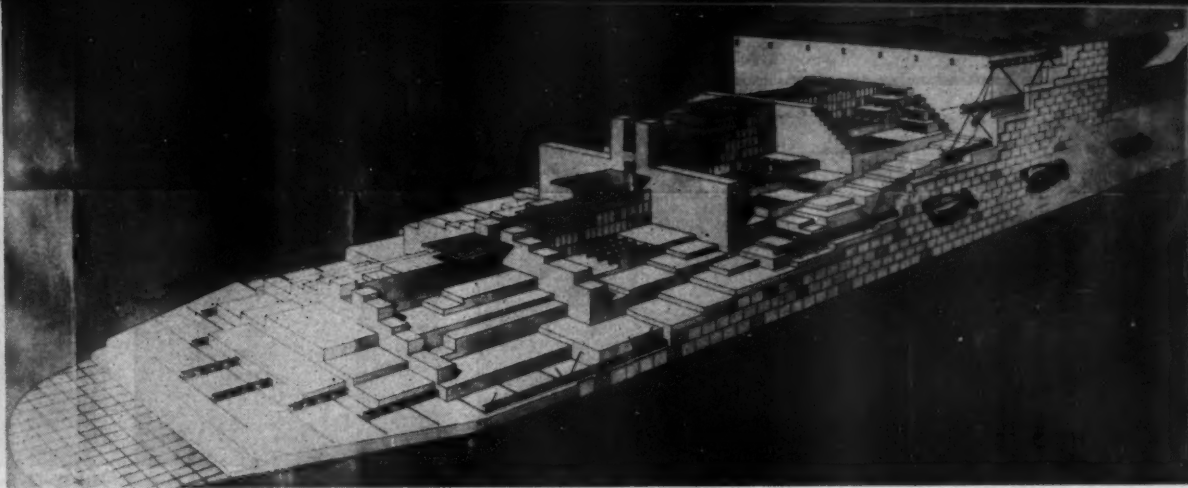
ranging from holes in the hull and ruptured fuel tanks to rudder and propeller damage.

MSTS, which is the ocean shipping agency for the Department of Defense, was assigned the task of resupplying DEW Line and other Arctic stations because ships offer the best—and cheapest—means of lifting large quantities of cargo and petroleum in a short period.

In addition to resupplying the DEW Line during 1956, MSTs carried out three other Arctic sealift projects: *Sunec*, the resupply of Air Force bases and other outposts in northeast Canada, Labrador and Greenland; *Mona Lisa*, the resupply of U. S. bases on the west coast of Alaska; and the resupply of Department of Interior sealing stations in the Pribilof Islands off the southwest coast of Alaska.

ON ICE—USS *Atka* rests on ice pack while planting automatic weather station to keep posted on changes.





The Tale of Habbakuk, the Ice Cube Carrier of WW II

WARS CAN ALWAYS be counted on to produce a spate of seemingly far-fetched ideas for alleviating shortages and otherwise helping to promote a nation's war efforts, but few of these ideas have equalled the Allies' World War II "Project Habbakuk" in sheer something or other.

"Habbakuk" was a plan for building—of ice—a 2,000,000-ton aircraft carrier, the ship being visualized as an invulnerable floating air base to combat enemy submarines and to afford air cover for landings on the European coast. Far-fetched as the idea seems, the combined Chiefs of Staff considered the plan feasible enough for the American, British and Canadian governments to carry the project along to the model building stage before technical headaches and easing of the submarine menace led to the project's being dropped. (The plan had originated with the British in September 1942, and was dropped in December 1943.)

Original plans called for the gigantic floating icebox to be 2000 feet long, 300 feet wide and 200 feet deep. Propelled by electric motors attached to an outer skin, the iceberg carrier was expected to make at least a few knots. Its only armament would have been batteries of anti-aircraft guns, while the cost was estimated at some \$70,000,000. Her chief advantage was a predicted ability to withstand torpedo attack, it being estimated that a "tin fish" exploding against the icy hull would dig only a three-foot crater.

Designed for the cold waters of the North Atlantic, the carrier was to have been provided with self-contained refrigeration machinery to keep the hull from melting should

warm water duty become necessary. The refrigeration engines, installed in a central hold, were to circulate cold air through sheet iron pipes placed within the insulating skin.

Engineers working on the project realized that ordinary ice was too brittle, so they invented a substance called "pykrete," which was nothing more than ice reinforced with wood pulp. From four to fourteen per cent of wood pulp was mixed with water, turning the resulting ice into what was called a tough plastic solid, capable of being cut and worked like wood. In addition, pykrete melted more slowly than plain ice, an ordinary small-arms bullet would bounce off the frozen mixture, and a carrier hull of the substance was estimated as being capable of resisting waves 1000 feet long and 50 feet high.

In the winter of 1943 a 1000-ton model, 60 feet long, 30 feet wide and 20 feet deep, was built at Patricia Lake, Jasper, Canada. Plans for the iceberg ship were then deep-sixed

(or else stowed away in some designer's deepfreeze indefinitely).

Of more recent vintage—and perhaps much too prosaic to be mentioned in the same breath with Project Habbakuk—is another project involving floating ice, but it's called an ice island rather than an iceberg ship, and the cold stuff is a natural product of the Far North.

This is T-3, or Fletcher's Ice Island, a huge hunk of floating ice some 200-250 miles from the North Pole. T-3 is the site of the Air Force's northernmost weather and Arctic research data station. Abandoned for a time when the island (bereft of the motors which would have propelled Habbakuk) floated too close to an existing, more stable radar installation in 1954, the island has since been re-occupied by a team of Air Force researchers.

Currently, scientists of the Oceanographic Committee for the International Geophysical Year are also using Fletcher's Island as a base.

COOL MODEL — Sixty-foot model of Habbakuk was built in Canada during early WW II. Workmen lay refrigeration pipes over first layer of ice blocks.



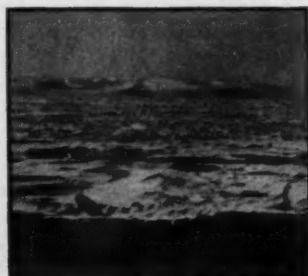
COLD FACTS ON TYPES OF ICE



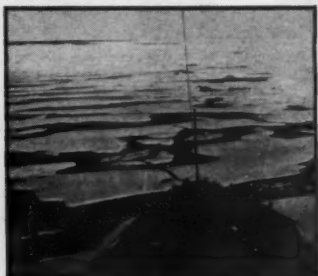
GIANT FLOE: 3,000'-5 MILES



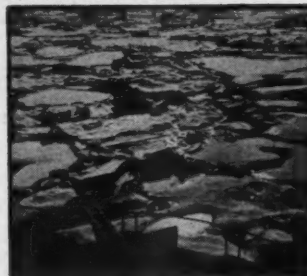
MEDIUM FLOE: 600'-3,000'



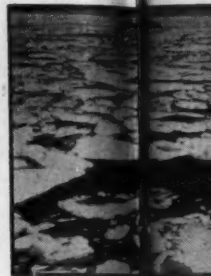
POLAR ICE (with Puddles). This ice is the thickest and heaviest form of sea ice and is more than one year old. Puddles are depressions in ice filled with melt water.



FLAT PUDDLED WINTER ICE. Developed in one winter or less, this ice shows a level surface marked by puddles of melt water.



CONSOLIDATED ICE, area containing the heavier forms of polar ice, is entirely devoid of open patches of sea water.



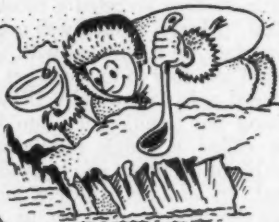
CLOSE ICE, like this ice, covers tenths to ten-tenths of a given sea-

ICE IN THE SEA

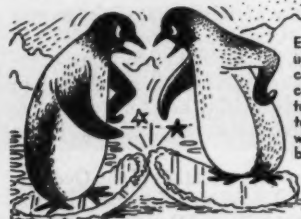


Ice in the sea consists, for the most part, of either sea ice formed by the freezing of top layers of the ocean, or icebergs originating from glaciers or continental ice sheets. Sea ice accounts for probably 95 percent of the area of ice encountered, but bergs are important because of the manner in which they drift from their point of origin, constituting a navigation hazard.

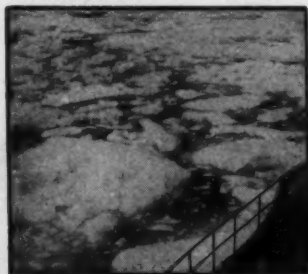
A certain amount of ice encountered at sea originates in rivers or estuaries as fresh water ice; however, as it is already in a state of deterioration by the time it reaches the open sea, its importance is local. The first sign that the sea surface is freezing is an oily opaque appearance of the water. This appearance is caused by the formation of spicules, minute ice needles, and thin plates of ice known as frazil crystals, which develop into thick soupy slush.



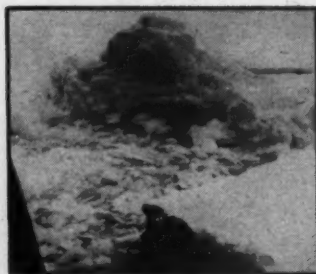
Except in wind-sheltered areas, the slush, as it thickens, breaks up into separate masses, frequently in a characteristic pancake form. The raised edges and rounded shapes result from collisions of the cakes. With continuation of low temperatures the cakes freeze into a continuous sheet. Ice may grow to a thickness of four or five inches in the first 48 hours, after which growth becomes progressively slower. Sea ice seldom becomes more than five to seven feet thick the first winter.



As stresses are relieved, long cracks develop which permit movement of segments within the pack. With the shifting of the ice, crowding may cause the ice to pile up into pressure ridges and hummocks. Rafting (overriding of one piece onto another) is the most common effect of pressure. In spring or summer as snow or the surface of the ice melts, the ice becomes covered with water. Continued thawing of the ice develops honeycomb passages and holes into which the surface water drains.



BLOCKS and BRASH are fragments of sea ice, the blocks being pieces measuring from 6 to 30 feet across, while brash measures less than six feet across.



HUMMOCKED ICE, with mounds or hillocks like these, is a type of pressure ice similar to rafted ice, but requiring a good bit less pressure in formation.



UNWEATHERED PRESSURE RIDGE. Pressure ridges may be several miles long and up to one hundred feet high.



SHELF ICE is a thick formation surface, firmly attached to land but

ICE THAT COMES FROM



ICEBERG

BERG

Ice of land origin in the sea, though often spectacular, is of minor importance in arctic operations except in localized areas. Icebergs are large masses of ice detached from the fronts of glaciers, from glacier ice

masses, or from icebergs, termed bergs, from glaciers.



At times an iceberg will appear dark in contrast with the sky or with other bergs in the direct sunlight, and this phenomenon has often led mariners to report islands where none exist.



Icebergs are products of the land, and not of the sea. Arctic bergs originate mainly in the glaciers of Greenland, which has 90 percent of the land ice of the north polar region.

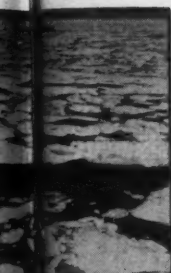


It is often erroneously assumed that a berg with one-eighth above water and seven-eighths submerged should be floating with a draft seven times its height above water; but these ratios hold good only for mass, and not for shape.

When fog is the only thing shining above the water, the appearance of a luminescent object is a danger. If the object is a narrow block, the water

ICES ON ICE

ICES OF ICE



ice, covers from eight-
tenths of given sea-water area.



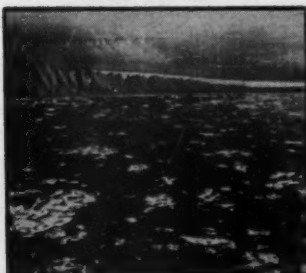
SMALL FLOE: 30'-600'



RAFTED ICE, a type of pressure ice formed by one cake overriding another, has well-defined contours.



BLOCK: 6'-30'



SCATTERED ICE covers from one-tenth to one-half of the sea surface and is regularly distributed over the entire water area.



BRASH: 6'



PANCAKE ICE is young, rimmed, circular in shape, with pieces measuring one to six feet in diameter. Rotary grinding causes peculiar shape of pieces.

ICES FROM THE LAND



BERGY BIT **GROWLER**

ices, or from the shelf ice of the Antarctic. Smaller ones, termed growlers and bergy bits, originate, like all from glaciers, or are formed from the disintegration of icebergs and other masses of land-formed ice.

ICEBERGS

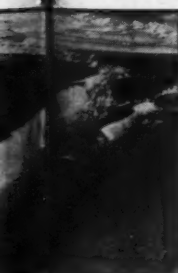


Bergs are irregular in form and take many varied shapes. Most common are the irregular dome-shaped bergs, produced by glaciers that have plowed across the uneven foreland on their way to tidewater.

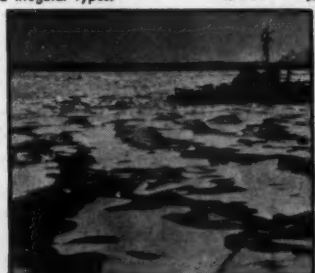
When fog is dense but the sun is shining the first appearance of a berg is in the form of a luminous white object. If the sun is not shining, a dark, somber mass is a narrow streak of black on the water line.



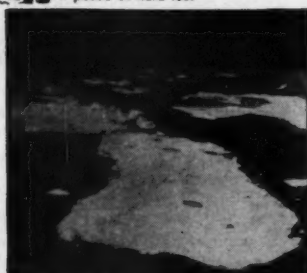
Measurements on Arctic bergs show that the draft is seldom more than five times the exposed height for the blockiest bergs, and may be as low as one or two times the height for the pinnacle and irregular types.



a thick formation with a level
y surface, and but extending
sides.



FLAT ICE in a final stage prior to its disintegration. Puddles have partially melted through the ice.



SMALL FLOE (30 to 600 feet across) with rim (underwater ledge). A few puddles are on the surface of the floe.



WEATHERED ICEBERG has a surface texture resembling the weathered surface of polished white marble and irregular outline due to advanced stage of decay.

ICE OBSERVATIONS



Ice observations are made from aboard ship, from land stations, and from aircraft, with each type of observation offering specified information. A comprehensive description of ice conditions requires a combination of these three types of observations.

The number of bergs, bergy bits, and growlers can be determined readily for a particular area. If the observer has difficulty deciding whether a number of small ice fragments are blocks or growlers, he classes them as growlers.



Whenever possible it is important to distinguish older, hard ice from the softer, crumbly winter ice. Often, this type of ice is found fused in fields of winter ice, appearing as a pale blue island in a field of light-green or gray-blue ice.



It is important to note the presence, size and orientation of hummocks and ridges. The cores of hummocks frequently are composed of hard ice.



For part of his equipment, an observer carries a clipboard to which he can attach the track chart, a pair of light-weight binoculars and a pair of dark glasses.



Sea ice that is less than one year old (winter ice), which is somewhat salty, melts more readily than older, less salty floes.



Ice thickness can be measured by shipboard observers using augers or saws, or estimated, as ice is turned on edge by ship's bow. Aerial observers should not try to estimate thickness.



The depth of the snow is estimated or measured directly by shipboard and shore-based observers. Aerial observers simply categorize the snow as continuous, drifted, or not present.

★ ★ ★ ★ TODAY'S NAVY ★ ★ ★ ★



HEADED FOR COOL CRUISE—USS *Brough* (DE 148) has been assigned duty in Antarctica where she will serve as weather and picket ship for Navy planes.

Brough and Ready

Going south to escape the winter weather is "SOP" for some Newport residents, but when USS *Brough* (DE 148) rounded up her crewmen and headed south she had a different goal in mind—Antarctica and duty as a weather and picket ship for Navy aircraft flying from New Zealand to the frozen southland.

First Navy ship to leave the U. S. for participation in Operation Deep-freeze II, Newport-based *Brough* has been specially fitted for her southern duty. Her 40mm quadruple gun mount was removed and an aerology office installed. She was given a new radio direction finder as well.

Her ability to remain on station was increased by the installation of two new boilers, and new evaporators which can make 8000 gallons of fresh water daily. *Brough*, a 306-foot World War II destroyer escort

is powered by diesel engines and has a 100,000-gallon fuel capacity which gives her extremely long endurance. For example, she can steam from Panama to New Zealand without refueling.

For her Antarctic duties, the escort vessel's normal 185-man crew has been supplemented by about 35 men, a Navy doctor and six enlisted aerologists.

Weather information gathered by the AGs will be extremely valuable to planes making the hazardous flights over the southern ice continent. The Navy weather specialists are using helium-filled, radio-bearing balloons to gather high-altitude weather information. Equipment aboard *Brough* receives and interprets messages from the balloons.

DE 148 arrived on station at 57° south, 170° east in mid-October and—weather permitting—she expects to be back in Newport in March.

News of Navy Ships

Mythological gods, naval heroes, an island, a couple of U. S. counties—these and more are reflected in the roundup of the changes in status and the new construction needed to keep a "modern" Navy modern.

On the "what's new" side of the ledger:

- BuShips has announced plans to convert two merchant-type ships for duty in the development and testing of intermediate range ballistic missiles. New York Naval Shipyard will convert ex-ss *Garden Mariner*, which has been renamed **USS *Compass Island*** (AG 153); AG 154, the ex-ss *Empire State Mariner* has received no name as yet, but her conversion has been assigned to the Norfolk yard.

- Yet another merchant type—ss *Diamond Mariner*—has been assigned to a private yard for the preparation of plans, repairs, activation and conversion to an attack transport. As yet unnamed, she will bear the hull designation **APA 248**; her conversion will consist chiefly of installing a helicopter landing platform on the after deck, and the installation of heavy duty winches to handle large landing craft. When the conversion is completed, the APA will have an over-all length of 563 feet, a 76-foot beam and light displacement of 10,700 tons.

- Contracts have also been awarded for three ammunition ships—**AEs 23, 24 and 25**. While similar to USS *Suribachi* (AE 21) and *Mauna Kea* (AE 22), the three new ones will feature improved machinery for conducting rapid replenishment-at-sea operations. AEs 23, 24 and 25 will also have air conditioning throughout their living and working spaces, redesigned crew quarters and the most recent habitability improvements. Each ship will carry a complement of approximately 20 officers and 330 enlisted men.

- Two major conversion jobs have been assigned to the Long Beach Naval Shipyard. The ships, **USS *Newell*** (DE 322) and ***Ramsden*** (DE 382), will be stripped down and rebuilt into radar picket escort

YESTERDAY'S NAVY



On 3 Dec 1775 the Navy's first Fleet was put in commission. On 14 Dec 1944 the rank of Fleet Admiral, United States Navy, was established. On 16 Dec. 1922 USS *Bainbridge* rescued 482 crew members and passengers from the burning French military transport, *Vinh-Long*, in the Sea of Marmora. On 20 Dec 1941 Admiral Ernest J. King USN, was designated by the President as Commander in Chief, United States Fleet. On 20 Dec 1822 Congress authorized the outfitting of a naval squadron for the suppression of piracy in the Caribbean. On 24 Dec 1814 the Treaty of Ghent, ending the War of 1812, was concluded.

ships, with major portions of the conversion involving electronic installations, habitability features and extensive aluminum construction.

The gods of old have a new representative in the Navy, now that **USS Thor** (ARC 4) has been commissioned at Baltimore. The new cable ship (named for the Norse god of thunder) was converted from the attack cargo ship **Vanadis** (AKA 49) and is capable of laying and repairing cables, in addition to such supporting duties as performing hydrographic surveys and locating favorable hydrophone sites. *Thor's* low hull number is accounted for by the fact that cable laying was an Army function until 1950. Since that year the Navy has commissioned three other cable ships, **USS Portunus** (ARC 1), **Neptune** (ARC 2) and **Aeolus** (ARC 3). *Portunus* was originally the LSM 275, *Aeolus* was AKA 47 (*Turandot*), and *Neptune* was a privately-owned vessel.

Other commissionings include:

- **USS Barry** (DD 933), which was placed in commission at the Boston Naval Shipyard. Third destroyer of the new *Forrest Sherman* class, *Barry* is the fourth Navy ship to bear the name of Commodore John Barry, illustrious Revolutionary War naval hero. *Barry's* vital statistics: 418 feet long, 45-foot beam, 3500-ton standard displacement—plus the latest in anti-submarine devices and armament which gives the class greater fire power than any previous destroyer class, despite a reduction in the number of guns carried.

- Yet another destroyer of the *Sherman* class, **USS DuPont** (DD 941), has been launched at Bath, me. *DuPont* is the fifth of her class and is expected to be ready to join the Fleet in July 1957.

- **USS Salmon** (SSR 573), the

second submarine built specifically for radar patrol duties, has been commissioned at the Naval Shipyard, Portsmouth, N. H. **SSR 573** is the fourth Navy ship to bear the name and is a sister ship of *uss Sailfish* (SSR 572). *Salmon's* predecessor was a veteran of 11 Pacific patrols during World War II, winning the Presidential Unit Citation for her "extraordinary heroism against enemy surface craft."

- And a bottle of champagne has been smashed across the bow of **USS Suffolk County** (LST 1173), thus sending down to sea the Boston Naval Shipyard's first postwar ship construction, while Newport News has started building a member of the longer, faster LST 1175 group.

There's something new along Pacific Fleet supply lines, too: **USS Castor** (AKS 1) is back on the job after undergoing considerable modification to fit her for a new supply technique. Sporting a noticeably-changed silhouette, *Castor* has become an "all cog," a ship carrying a consolidated load of both technical and general stores materials. She will service the Fleet with a full line of electronics, ordnance and ship repair parts, in addition to the usual general stores items, clothing, medical and ship's store supplies.

Castor's "new look" includes a deck house extended as far aft as the king posts between hatches number 4 and 5; specially-designed drawers, bins and racks; a paint and lube storage area; a two-way tele-talk system between each level of each hatch and master control stations in the supply office and Fleet issue room; and reduced hatchways to make room for the future installation of pallet-sized freight elevators.

After a fashion, **USS Hissem** (DER 400) is also new, having been re-

commissioned up in Boston after lying inactive in the Fleet Reserve since 1946. The World War II destroyer escort has been completely rebuilt, refitted and modernized for her duties as a radar picket in the defense line operated by the Atlantic Fleet. **DER 400** received her name from the late Ensign Joseph Metcalf Hissem, USNR, a naval aviator attached to Torpedo Squadron Eight, who lost his life in the Battle of Midway during World War II.

On the other side of the ledger, one of the oldest LSTs on active duty has been scheduled for inactivation at Bremerton, while an APA and three 'sweeps have already given up their Navy crews and two submarines have been turned over to Brazil.

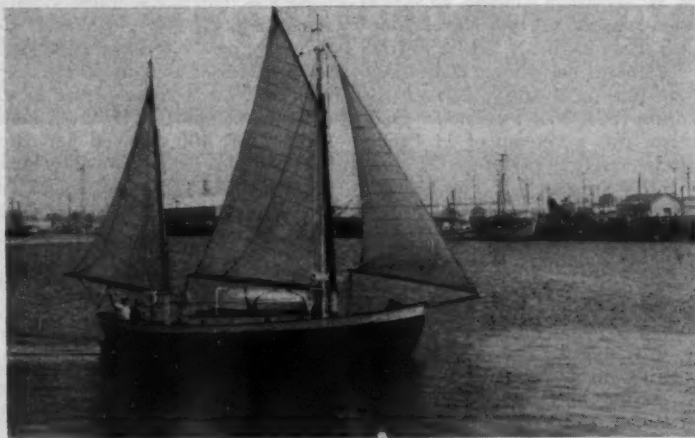
- Battle-scarred **USS Cassia County** (LST 527) was originally commissioned in 1944, in time to participate with the Atlantic Fleet in the invasion of Normandy, Juno Beach and Omaha Beach. She made a total of 45 cross-Channel trips during the invasion; then transported equipment at LeHavre, carried food and supplies up the Seine River to Rouen, disembarked ammunition to troops on the Brest Peninsula at St. Michel and hauled some 1800 prisoners of war to England.

Returning to the States in July 1945, she served two years as "nest ship" in the inactivation of other craft at Green Cove Springs, Fla., before being inactivated herself in October 1947. Recommissioned in September 1950, *Cassia County* was transferred to the Pacific Fleet, where she completed three tours of duty in the Far East, including participation in both the "Little Switch" and "Big Switch" operations.

- **USS Deuel** (APA 160), attack transport and "movie star," has been



SEA HOBBY SHOP—Sailors of **USS Windham Bay** (T-CVU 92) tool leather. Right: Hobbyists exhibit projects.



Must Go Down to the Sea Again

While most Navymen end their seafaring careers when they retire, others can't shake the salt out of their systems and never get away from the sea at all.

Such is the case with LCDR Herman R. Hebb, USN, who enlisted in the Navy 25 years ago and retired in October. He has already taken to the sea again.

This time, however, he's off on a cruise that's different from any he has ever made. It's not a short several-month jaunt as most Navy cruises are nowadays, but he has his sails set for a 10-year voyage.

LCDR Hebb is making this cruise at the helm of his own command—a 30-foot Tahiti ketch named *Voyager*. His crew consists of one able-bodied seaman—his wife.

Departing from the small boat facility at Port Hueneme, Calif., LCDR and Mrs. Hebb plan to sail to Panama, transit the canal and then proceed north along the east coast of Mexico and the U.S. In April 1958, when the tide is right and the weather fair, the skipper and his mate plan to depart from New York and sailing for the Med.

LCDR Hebb enlisted as seaman back in 1931, receiving his basic training and attending radio school at Norfolk, Va. He served in various ships and air squadrons, and fought in both the North Atlantic and the South Pacific. In 1943 he was promoted from Chief Radioman to warrant rank, and then went on up the ladder. A graduate of the Navy's airborne electronics

school, LCDR Hebb has been associated with Ground Control Approach since its beginning.

At the time of his retirement, LCDR Hebb was assigned to the Ground Control Approach Unit at the Air Missile Test Center, Point Mugu, Calif. While stationed there he purchased *Voyager* and planned his trip.

Since he'll sail coastal waters most of the way, the "retired" sailor and his wife do not expect to encounter any food or refrigeration problems.

Their longest stint at sea will be their journey across the Atlantic which will take them about four weeks. After reaching Europe, they plan to spend a number of years cruising waters off Italy and Spain.



CASTING OFF from Port Hueneme, Hebb's will sail coastal waters to N.Y.C. winding up with cruise to Med.

decommissioned at the Southgate Annex of the New York yard. Sharp-eyed sailormen may recognize *Deuel*, a veteran of the later stages of World War II and of the Korean campaign, as a part of the task force in "Away All Boats," a motion picture now touring Fleet circuits.

• Coastal minesweeper MSC 260 has been turned over to the Belgians at ceremonies in Boston Naval Shipyard—where she was promptly commissioned into the Belgian Navy as the M-935. Out in San Diego, USS MSC 263 has been transferred to the Royal Danish Navy and renamed HMDS *Ulosund*. And the Spaniards have taken over USS MSC 265, also under the provisions of the Mutual Defense Assistance Program.

• Last, but not least, the submarines USS *Muskallunge* (SS 262) and *Paddle* (SS 263) have been recommissioned at Philadelphia, only to be loaned to Brazil under MDAP.

Hobby Shop at Sea

One of the favorite spots on USS *Windham Bay* (T-CVU 92) when she puts out to sea is the ship's hobby shop. The hobby shop spaces were converted from the old pipe fitter and carpenter shops.

Windham Bay's hobby shop, which is open to all hands during their off duty hours, is equipped with the best hand and power tools available. Among the many articles the crewmen have built in the ship's hobby shop are motor boats, hi-fi and record cabinets, bars, handbags and other leather goods, book cases and model railroad systems.

Windham Bay is at present a part of the MSTs in the Pacific.

High-Speed Refueling

High-speed aircraft are receiving high-speed refueling at Moffett Field these days. The California naval air station has been equipped with a new fuel facility which will allow eight aircraft to be serviced simultaneously, instead of the usual one at a time.

The installation is composed of a 2500-barrel day tank (105,000 gallons), water separators, electrical facilities, some 6000 yards of concrete fueling aprons, and connecting roadways. Gas hoses are designed for pressure dispensing. Since 95 per cent of all jet aircraft manufactured today take on fuel from the underside, most of the aircraft will benefit from the new system.

Battle Against Killers at Sea

A Navy squadron of anti-submarine planes received some unusual training recently when they were asked to stalk a different kind of target.

Schools of vicious killer whales which plague Iceland's fishermen were bombed by units of PatRon Seven in an act of community co-operation. Killer whales, ranging from 20 to 30 feet in length, are feared as the deadliest of ocean creatures. They group-up in schools and prey on large fish and seals. These mammals have long, sharp teeth and it has been reported that they even attack and kill larger whales.

They present an extreme threat to Iceland's fishing industry as they annually damage several million *kronur* worth of fishing nets. These killer whales tear the nets to shreds after feeding on the fish trapped in them.

This is the second consecutive year that Navy *Neptunes*, the roving "aerial eyes" of NATO's Iceland Defense Force, went to the aid of Icelandic fishermen. Loaded with 350-pound depth charges, the VP-7 long-range patrol bombers patrolled Arctic waters in an attempt to destroy the whales or scatter them before they could do any damage.

Last year the killer whales did so much damage to fishing nets that the fishing season was threatened to be cut in half until the Navy stepped in and came to the fishermen's rescue. Taking up the fight against the whales, the Navy enabled the fishermen to complete their season and fulfill vital foreign trade commitments. Fishing is one of Iceland's two major industries. Fishing employs about 20 per cent of that nation's population and is responsible for a large portion of the foreign currency income.

It is reported that the patrol bombers from PatRon Seven, based at Iceland's Keflavik Airport, destroyed more than 90 per cent of a large school of whales on its first run. On another, more than half of smaller and scattered schools were destroyed. Whales not killed by the explosion were frightened by the blasts and diverted from the area.

According to Captain Agnar Gudmundsson, the skipper of an Icelandic whaler, the whales that survived the depth charging would scatter, traveling up to 30 miles

per hour. Breaking up the schools, he said, should keep the killer whales away until the season is over.

Captain Gudmundsson served as a spotter aboard the patrol bombers during their whale-killing mission. He went along to identify the killers and to prevent the bombing of other types which are hunted commercially for their oil and meat.

Protection Against G Forces

With the arrival of the supersonic jet age with its high-flying bombers and fighters, the Navy is spending more and more time on problems of keeping pilots alive and alert during high-altitude flying.

Oxygen is required by all pilots normally flying above 10,000 feet. They would become unconscious in less than 30 seconds if they were deprived of 100 per cent oxygen supply above 30,000 feet. If a pilot's plane takes him above 40,000 feet he must receive this pure oxygen under pressure.

Above 50,000 feet the pilot must be provided with a complete artificial environment. His plane cockpit is pressurized but he must wear a partial or completely pressurized suit as well, to protect him in case battle damage or accident should depressurize the cockpit. At high altitudes, without a suit to protect him, his body would literally "explode" and he would die in a matter of seconds.

One of the latest suits developed for this purpose is a new "omni-environment" pressure suit. In this suit the pilot is completely enclosed from head to feet much like a deep sea diver. Unlike the sea diver, however, who breathes ordinary air, the plane pilot breathes 100 per cent oxygen from the time his plane leaves the ground. This prevents him from getting the "bends" during rapid climbs.

The "omni-environment" suit gives

him protection against low air pressure, provides him with oxygen and protects against heavy G forces during maneuvers. To keep his body temperature at a reasonable level when high speeds heat up his cockpit, the suit includes provision for ventilation. Should he have to bail out of his plane over water, the suit will protect him against death in cold ocean waters. Now, in one garment, the Navy pilot will be afforded protection which formerly was provided by several suits.

A First in Portside Refueling

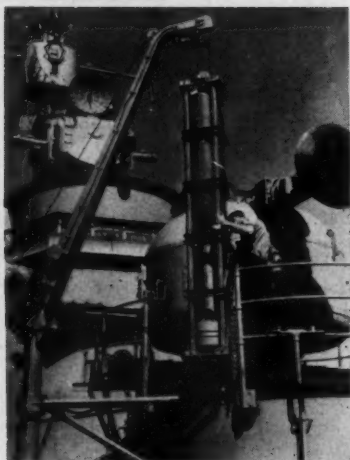
Refueling a destroyer from the port side of an angled deck carrier is highly unusual to say the least, but *USS Lexington* (CVA 16)—probably for the first time in the history of angled deck craft—has successfully performed that feat.

Biggest problem confronting both the carrier and *USS Laws* (DD 558) during the unorthodox refueling session was the possibility that the destroyer's mast might tangle with *Lexington's* deck overhang. Conducting refueling operations from the port side of carriers is complicated by the fact that a carrier skipper from his bridge in the starboard-side island has a difficult time seeing anything close along the port side of his flattop.

It took 10 days for *Lexington's* deck force, working according to the ship's blueprints, to put together a "homemade" rig for their portside fueling experiment, since the ship was equipped to refuel from the starboard side only. Once the "bugs" had been worked out, however, the carrier refueled *Laws* speedily and without incident—and *Lexington's* men declare the performance can be repeated with as little as a half hour's notice, even while conducting normal refueling operations on the starboard side.

USS SALISBURY SOUND (AV 13) poses for a portrait in San Francisco Bay. Her service with AirPac included carrying 650 Philippine troops for SEATO.





Nuclear Powered Cruiser

A contract for the construction of a nuclear powered guided missile cruiser, CG(N), has been awarded.

Previously identified as a nuclear powered guided missile light cruiser (CLGN), this ship is included in the Navy's fiscal 1957 shipbuilding and conversion program.

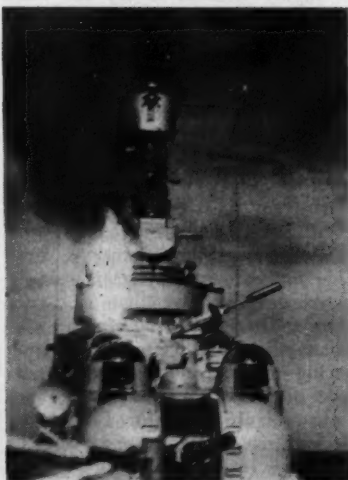
The cruiser, now being designed by BuShips, will be approximately 700 feet in length, with a displacement of approximately 14,000 tons. Armament will consist almost entirely of guided missiles.

The most modern improvements in electronic detection devices will be installed aboard the new ship, which is the first to be designed and constructed from the keel up as a cruiser since the end of World War II. It will be the Navy's first nuclear powered surface ship.

Warning Shot Wave Off

An emergency wave-off signaling device developed by an Air Navy CPO has been granted a U. S. patent, with the government reserving for itself royalty-free use of the invention.

Officially described as a "discharge device," the new gadget is a type of Very's pistol which can be fired from a remote point. A pilot who has something wrong with his plane or whose approach is bad can be alerted into a wave-off by Very's shells fired downfield well within his range of sight. The system



LOOK OUT BELOW!—Weapon A spells death to subs as it blasts off USS Wilkinson (DL 5). New rapid firing covers larger area than old ash cans.



makes it possible to wave off a pilot in the final moments of his let-down, even after the tower can no longer communicate with him.

Originator of the device is Wilbur B. Webb, ALC(NAP), USNR, who has been working on the idea since 1951.

Chief Webb, a veteran World War II pilot, started working on the device after seeing a wheels-up landing which could have been prevented by a wave-off signal such as the one he has patented. Although Webb will not be paid for any use the government makes of his invention, he will receive royalties from civilian enterprises using the discharge device he has developed.

Panama Training Maneuvers

A joint armed forces amphibious and airborne training exercise will be held on the coral beaches and in the dense jungles in the Panama Canal Zone next April.

To be called Carib-Ex, the operation is part of the program to train troops under different climatic conditions, ranging from arctic cold to the humid heat of the tropics.

Some 24 Navy ships will engage in maneuvers in a mock attack on the Isthmus, along with more than 10,000 Army and Marine troops, and approximately 135 Marine and Air Force tactical and troop-carrier planes.

The five-day, two-phase exercise will encircle both sides of the Canal Zone and a portion of the Panama Republic, and will include training with simulated atomic weapons.

The first phase will consist of Navy and Marine amphibious assault followed by offensive air and ground operations against an "aggressor" army entrenched in the jungle.

The second phase will take place in the Rio Hato training area on the Pacific side and will be an Army airborne assault followed by the air-landing of Army troops and an air-ground offensive against an "enemy" force three.

The joint amphibious task force will include a regimental landing team and an air group from Fleet Marine Force, Atlantic. The Army airborne assault during the second phase of the exercise will be conducted by units from the Continental Army Command and group forces from Army Caribbean and Tactical Air Command Squadron.

Rattlesnake in the Air

The new air-to-air guided missile, the *Sidewinder*, is now operational and is on board Fleet units at sea. The missile is named after the fast-striking desert rattlesnake, the sidewinder.

Sidewinder will provide the Fleet with an inexpensive weapon capable of operating against high-performance aircraft. Extensive testing and evaluation have demonstrated that it can destroy enemy fighters or bombers from sea level to altitudes of over 50,000 feet.

Two Navy squadrons capable of handling the new missile already have been deployed with the Fleet.

Sidewinder represents a new approach to weapons systems for defense against supersonic aircraft. This new missile has very few moving parts and no more electronic components than an ordinary radio. Its simplicity makes it possible for Navymen to handle and assemble it without undergoing any specialized technical training.

Tracking The Earth Satellite

The first radio tracking station for measuring the path of the scientific earth satellite and obtaining other data has been established at Blossom Point, Md. The station, one of 10 planned for operation during the International Geophysical Year, is being operated by Project Vanguard personnel of the Naval Research Laboratory.

The Blossom Point radio tracking station will be used at first to evaluate the radio tracking system, known as Minitrack, and to train the operating crews for the other tracking stations.

ONR engineers and technicians at Blossom Point have been testing the tiny Minitrack transmitter that will send signals back from the satellite to the radio tracking stations on the ground. Initial tests indicate a high degree of efficiency and reliability for the little satellite transmitter, which weighs only 13 ounces and has a potential broadcast range of more than 4000 miles using Minitrack receiving stations.

Interesting results have been obtained from various tests using the Minitrack receiving equipment. For example, the station has received signals from the sun and other solar bodies, and evaluation tests also have been made by sending signals from aircraft and balloons to ground.



WHOOSHI—Rocket-propelled Terrier anti-aircraft missile shows off its lethal power in test against P4Y-2K drone.



Smallest Combat Jet

The nation's smallest combat jet airplane, the A4D *Skyhawk*, has gone into service with the U. S. Navy following "Fleet Introduction Program" trials.

Less than half the size of many current jet fighters, the *Skyhawk* is so small that it was designed without the folding wings previously required for Navy carrier-based planes.

Span of the A4D is 27 feet, length 38 feet, and height 15 feet. The single-place, low wing monoplane, of aluminum alloy construction, is powered by a single turbojet engine.

It is capable of carrying atom bombs, rockets, guided missiles, machine guns, and other weapons.

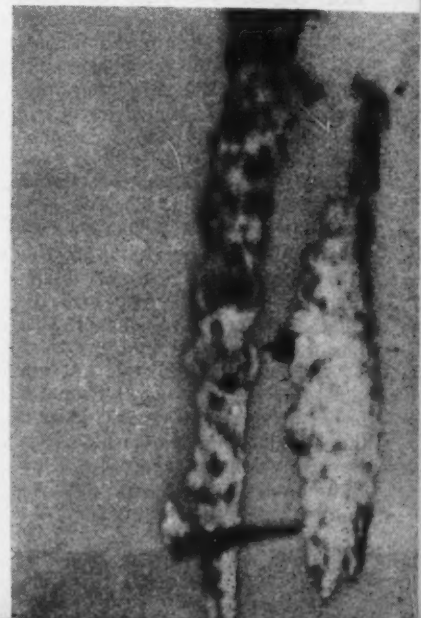
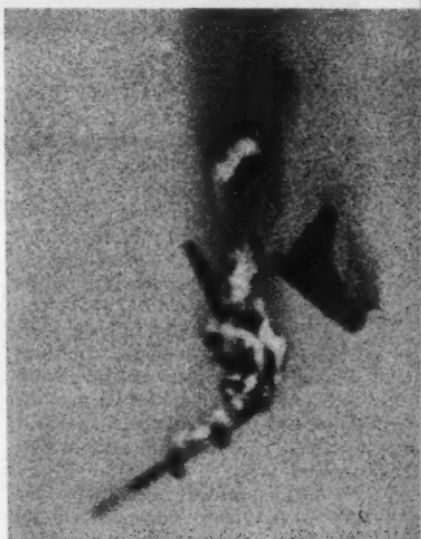
For Simulated Bomb Drops

The Navy has developed a new practice bomb container for teaching pilots how to deliver nuclear weapons. The device is expected to save the Navy thousands of dollars over earlier methods of training.

Resembling the external fuel tanks carried by jet fighters, the bomb container can be shackled to any one of a number of Navy fighter-bombers now in operational use.

This device, which carries four miniature bombs that are released through bomb bay doors, will be put to use in the near future by pilots assigned to the Fleet. The bombs weigh only 56 pounds.

The containers are packed with special electronics equipment and instruments which record simulated bomb drops in the pilot's cockpit.





OFF DUTY, SEA DUTY — Navyman David L. Williams, BU1, USN, spends most of his spare time 'ashore' at sea with his inboard racing boat 'Miss Fire IV.'

Speedboat Sailor

Everyone takes a busman's holiday once in a while, but Navyman David L. Williams, BU1, USN, does it all the time. Sailor Williams spends most of his time, both on and off duty, on or near the water.

Reason is quite simple: Williams' hobby is high-speed motorboat racing and he spends most of his off-duty hours building, working on, or racing motorboats.

"I've been interested in boats since I was old enough to think," confesses Williams. "I've been working with outboard racing craft for the past 10 years, and two years ago, I switched to the speedier inboard racing models."

Williams' present boat, "Miss Fire IV," is 10½ feet long and is powered by a 48-cubic-inch hydro full-race engine. The boat has been clocked at speeds in excess of 80 mph on a straight run. The engine has a cast block, stroked crank, milled flywheel and a full race cam. It runs on a 12-volt ignition system and develops 280 pounds compression.

The latest race Williams competed in was the President's Cup Regatta in Washington, D.C. Other events he's entered include the 1952 Norfolk Regatta, the Tidewater Marathon in 1953 and '54, and the Elizabeth City International Cup Regatta.

Williams, a veteran of six years' naval service, was recently transferred from duty as an instructor at the Naval Retraining Command in Norfolk, Va., to Port Hueneme, Calif. Naturally he took his boat with him to try it on Western waters.

Sea Booters

The Sixth Fleet-based carrier *uss Randolph* (CVA 15) claims to be one of the few ships in the Atlantic Fleet with an organized soccer team.

Soon after the first call went out for candidates, more than 25 men showed up on the hangar deck for daily practice after working hours. The team now has a 2-2 record against military and civilian competition in Southern Europe. The organizer and coach is Lieutenant John B. Whittemore, USN, of VAW-12, a squadron attached to the carrier.



KAYAKING Navyman, John Pagkos, ETSN, USNR, paddled his way up into position on 1956 Olympic team.

The first game for the *Randolph* boosters was in Cannes, France, against the Central Bocca Soccer Club. The Bocca Club have been the champions of the Cote d'Azur league for the past four years.

The American Navy team lost to the Frenchmen by the score of 11-2 but the team's playing and sportsmanship made a big hit with the avid French fans.

Next game for the *Randolph* team was in Palermo, Sicily, against the highly regarded Campo Juventa team. The home team was too much for the carrier sailors, who lost an 8-1 decision.

The *Randolph* team broke the victory ice when the ship returned to Naples, Italy, where they posted their first win of the year. Victim of the *Randolph* booters was the British Military team, defeated 3-2.

The following week the carrier team once again took to the field of play against a reinforced British Military Club. Once again, the *Randolph* sailors took the measure of the British booters, this time to the tune of 5-0, marking the second victory and first shutout scored by the U.S. Navymen.—Dick Morris, BM3, USN, *uss Randolph*.

Year's End Sports Roundup

Clearing up the sports basket—A quick trip through the whirl of sports and here's what comes up from the sports basket:

Football—George Welsh, last year's great Naval Academy quarterback, guided the fortunes of the Norfolk Navy Tars. Along with Richie McCabe, ex-Pittsburgh Steeler, the Tars were among the Navy's top football powers. Other grid powerhouses this year were NTC Great Lakes and NTC San Diego. . . . One of the more surprising upsets this year came when the Little Creek, Va., Goshawks were loaded with talent this year. Strong line play by the Amphibious sailors kept the Pensacola gridders in check throughout the game.

The Naval Academy's football team this year enjoyed one of its most successful seasons. Included in this year's string of victories was a mighty 33-7 lacing the midshipmen gave the Irish of Notre Dame. This marked the first time in 20 years (outside of a 1944 victory over the draft-depleted Irishmen) that a Navy team has defeated Notre Dame. Navy's rivalry with Notre

Dame has been going on for 30 years and is second only to the Middies' rivalry with Army.

Baseball and softball—Perfect games were tossed by *Dick Irvine*, SN, USN, of NAS Norfolk and *James E. Mead*, RD2, USN, of *uss Estes* (AGC 12). Irvine tossed his no-hit, no-run game in the Fifth Naval District baseball playoffs. The victims of the chunky Irvine's slants were the Norfolk Tars. Jim Mead pitched his perfect, no-hit, no-run, no-man reaching-first, game in the South Seas softball League against the team from *uss Curtiss* (AV-4). Both men received trophies furnished by the Chief of Naval Personnel.

Not to be left out of the act, the BuPers softball team won the Navy Department combined softball championship. Ex-sailor Les Myers, now a civilian employee for BuPers, tossed 19 consecutive victories for the BuPers sailors. Included in his wins were a no-hitter, four one-hitters and five two-hitters. Myers had an average of 11 strike-outs per game. The top hitters for the BuPers team included *Roy Reitz*, YN3, USN, Ensign *Jim McMillon*, USNR, LTJG *Tom Smith*, USNR, and *Dick Hart*, MA2, USN.

The baseball team from *uss Forrestal* (CVA 59), won the ComAir-Lant title. . . . NAS Dallas "Grasscutters" copped the 8th N.D. softball title. . . . The "Minemen" from Charleston, S. C., won the Charleston City Championship and the South Carolina State Recreation Softball title. . . . Eastern All-Navy softball champs are from Submarine Squadron Six in New London, Conn. NAS Miramar took the Western All-Navy softball crown in a close victory over SubPac. *Irv Green*, BM2, USN, three time winner of CNP awards for pitching perfect softball games, and *Al Bessol*, had a combined average of 13 strike-outs per game during the Western tourney to lead Miramar to the title.

The "Top-of-the-World" softball title was won by the team from *uss Eldorado* (AGC 11), 9-6 over the Eskimos from Barrow Village, which is the northernmost settlement in the North American continent. *Eldorado's* squad earned the right to play the Eskimos by winning the elimination tourney among the ships that made the DEW Line Resupply Expedition. Although the title game was played in Alaskan mid-summer, the thermometer hovered around 26 degrees.



NEW DANCE? — No, this 'conga line' is result of camera's action-stopping flash in inter-service game at U.S. Fleet Activities, Yokosuka, Japan.

The *uss Salisbury Sound* (AV 13) softball team won the tough Mare Island Naval Shipyard baseball tourney with a 5-2 record. . . . This year's BatCruLant baseball champion is the team from *uss Des Moines* (CA 134).

The biggest racketeers in the U.S. Navy today are Ensigns *Bobby Payne* and *Alan Fischl*. Payne won the All-Navy tennis singles title and then joined with Fischl to take the doubles championship. Senior singles champ is Captain *Harry Reiter*, both from the Pacific Fleet.

Winner of the All-Navy golf title this year was LTJG *Dirk Prutner*, USN, a jet pilot from ComAirPac. *Bill Scarbrough*, AOC, USN, who was runner-up in the U.S. Public Links

tourney, finished second in the All-Navy championship. He's attached to Fleet Air Wing 11 in Jacksonville.

The ComAirPac "Skyraiders" won the Military Division of the National Skeetshooting Championship by the slim margin of one pigeon. The AirPac scatter gunners scored 1208x-1250 to edge the shooters from NAS Jacksonville, Fla., who were 1954 champions.

AirLant defeated ServLant 15-6, 15-12, to win the Atlantic Fleet volleyball championship.

LTJG *Bill Andre*, USNR, led the U.S. Modern Pentathlon team to fourth place in the international competitions held in Sweden. The former Dartmouth athlete finished eighth in the individual standings.

CDR *J. M. Ireland*, USN, of *uss Manchester* (CL 83), weighs in with a very interesting story. Playing over the Navy-Marine golf course in Pearl Harbor, he scored a hole-in-one on the par 3 No. 17 hole. Unfortunately, his ace came in March 1954, some six months before the BuPers "Hole-in-One" trophy was established. What's more interesting, however, is the fact that during the same round of golf, he had the following scores on each of the four par 3 holes: On hole No. 3, he took four strokes to get down; on hole No. 6, he came in with a par three; on hole No. 14, he had a birdie two; then on No. 17, he aced out. You can't lower your score any more than that. But, who knows, some funny things can happen in the whirl of sports.



MOTORCYCLING SAILOR Norris Gulbrandson, SN, USN, from Norfolk, won trophy in Richmond, Va. race.



BOXING TEAM IN OLYMPIC TRIALS poses with RADM J. R. Redman, center. Members are, left to right, F. Keating, C. Cush, R. Wharton, D. Bailey, B. Davis, H. Brown, F. Lee, J. Brown, P. Moynihan, L. Jones, D. Hobson, P. Segura, P. Brown, R. Nichols, W. Branch, A. Gibbs, (coach), M. Griffith (trainer) and R. Meath (Officer-in-Charge).

Boxers Go Down Like Champs

An underdog Navy sock squad came forth with a tremendous effort in the American Olympic Boxing Trials in San Francisco's Cow Palace, although failing by a close decision to place a man on the 10-man American Olympic team.

Pre-fight dopesters had it that the Navy's 11-man squad would be eliminated in their first fights. Although Navy had the smallest squad entered of any of the services, four Navy boxers, Duhart Bailey, Carl Cush, Ray Wharton and Francis "Tabby" Lee, reached the semi-finals with Lee to the finals.

In a performance that surprised just about everyone except the Navy boxers and their coaches, the Sea Service sluggers won six of nine fighters on opening night. Ray Wharton, SH2, USN, veteran Navy pugilist and twice former All-Navy champion, opened battle for the Blue-and-Gold garbed fighters. Ray, at 32, was the oldest fighter on the Navy team and probably the oldest boxer in the Trials.

But Wharton's ring savvy more than made up for any age deficit when he fought and won two fights on the first night's card. In the first bout, Wharton went against Ernie Fujiwara of the Air Force. Fujiwara was quite willing to mix it up, but his willingness was matched by his inexperience as the cat-like Wharton circled and planted his punches at will. Wharton decked the game Airman in each of the rounds and was awarded a unanimous decision.

Wharton's second fight of the night, and the last of a 42-bout card, came at 0045 against Rudy Valdez of Corpus Christi, Texas. The 18-year-old Texan was a little stronger and a heavier puncher than Ray's first opponent, but his lack of experience or, perhaps, Wharton's

greater edge in the ring knowledge department, proved the difference.

In the semi-finals, Wharton went against Choken Maekawa, NCAA champ from the University of Wisconsin. As has been Wharton's trouble throughout his fight career, his short arm reach again was his downfall as Maekawa outpointed the game sailor. Maekawa won the title and an Olympic berth.

The only Navyman to reach the finals was Francis "Tabby" Lee BMSN, USN, 1956 All-Navy 125-lb. champion. Tabby's road to the finals was rocky. In his first bout, he faced Robert Hicks, of Seattle, Wash., who boasted of a string of 25 consecutive victories and was heavily favored to go all the way.

Lee proved to be the master boxer and at the end of the second round, he decked Hicks for the mandatory nine count. Hicks came back strong

but Lee withstood his best shots and won by unanimous decision.

In the quarter-finals, Lee went up against Bobby Soileau from Louisiana State University. Lee found Soileau an elusive target but a previous injury to Soileau's shoulder was aggravated by one of Lee's heavy shots and Soileau was forced to retire. Lee won by TKO.

Cincinnati's John Joiner didn't prove too much of a problem to Lee as the hard hitting sailor scored a quick knockout in the second round to advance to the finals.

Lee fought a good fight in the finals for the 125-lb. Olympic berth but he couldn't solve the unorthodox tactics used by the All-Air Force champ, A2/c Harry Smith. The airman went on to win a close decision.

Duhart Bailey, SD3, USN, this year's All-Navy light welterweight king, also reached the semis in the Trials. His first bout was with Richard Rall from Washington State College. It was an even match, with the two sluggers taking turns staggering one another. Bailey, however, was the better boxer and won unanimous decision. Juan Melendez, All-Army champ, provided more than enough competition for Bailey in the semi-finals. The tough slugger from Puerto Rico came out swinging at the opening bell and dropped the Navy champ for the count in two minutes of the first.

Carl Cush, AN, USN, was the fourth Navy fighter to reach the semi-finals. Cush got past Marine private Ray Powell in his first bout with moderate ease but had a rough time winning a split decision over the tough Dick Bartman from the University of Wisconsin. In the semi-finals, Cush lost a decision to John Granger from Massena, N. Y.

Navy winners of first round bouts were Henry Brown, TN, USN, who



NAVY 125-LB. CHAMP Tabby Lee heads for neutral corner after decking Robert Hicks of Seattle, Wash.

put up one of the best fights of the Trials as he KOed Willie Moran in the third. But Brown suffered a cut eye and had to default next bout.

William Branch, SN, USN, was paired against his teammate Pat Moynihan, SN, USN, in the middleweight class. Branch scored a fast first round knockout with a short left hook and a solid right to the jaw. Branch was victim of the same fate in his next bout as he was KOed by Ed Crook of the Army.

Losers in the first round bracket were flyweight Perfecto "Chico" Segura, SN, USN, who went out in a second round KO at the hands of Army champion Francis Okuda; light heavy Don Hobson, SN, USN, didn't last long, KO victim of Ron Freeman of Milwaukee in the first; Louis Jones, SN, USN, lost a close decision to Marine heavyweight champion Jesse Barber; and Paul Brown, SN, USN, was outpointed by AF middleweight George McCorkle.

Ten Commandments of a Hunter

Among the many advantages of Navy life is the opportunity to hunt and fish in many areas of the U.S. and even in some foreign countries. This is the time of year for hunting.

One of the dangers of hunting is the possibility of a gunshot wound that could be painful, possibly disabling or even fatal. Because you're in the Navy and had the chance to fire a rifle on the range makes you no expert.

It might be well for you to learn and obey the Ten Commandments of a Hunter. These Commandments are:

1. Treat every gun as though it were loaded.
2. Carry only empty guns, taken down or with the action open, into your automobile, camp or home.
3. Always be sure that the barrel and action are clear of obstructions.
4. Always carry your gun so that you can control the direction of the muzzle even if you stumble.
5. Be sure of your target before you squeeze the trigger.
6. Never point a gun at anything you do not intend to kill.
7. Never leave your gun unattended unless you unload it first.
8. Never climb a tree or a fence with a loaded gun.
9. Never shoot at a flat, hard surface, or the surface of water.
10. Do not mix gunpowder and alcohol.

THEY WERE BATTLING for the highest honors in amateur sports—a trip to Melbourne and the 1956 Olympics. Soldiers, sailors, marines, airmen, college boys, and other amateurs in all walks of life, whaled away at one another for three nights in San Francisco's Cow Palace in the American Olympic Boxing Trials. But one of the stand-out matches was that of a fighter who did not make the Olympic team.

Carrying the Navy standard were nine tough youngsters from around the Fleet—the best available. The toughest of the tough proved to be young Henry Brown, SN, USN. By all rights, Brown should have been beaten. But the word 'quit' is not in his dictionary. Brown just plain refused to be beaten.

The tall 148-lb. All-Navy champion took a terrific lacing from Willie Moran during the first two rounds. His eye was cut and he was reeling . . . but swinging. Brown, actually, was beyond the point of no return in the second round, yet he came back. He had been hit with every size, weight, and angle of punch imaginable. Yet he was still on his feet and even landing a few effective punches himself.

Comes the third and Moran is on Brown in a flash. He'll put Brown in slumberland this round for sure. But from somewhere out of the depths of his tremendously game fighting heart, Henry Brown finds new strength to uncork a

powerful right hand that ends up on Moran's jaw. That's it! Moran reels back on his heels and then flattens out on his back—out cold.

Battered and bloody, but victorious, Brown let the referee lift his right glove. The announcement of the knockout was drowned out by the resounding ovation which the crowd gave bulldog Brown. A veteran sports scribe from one of the dailies wrote that never before in 31 years had San Francisco fight fans seen such a display of strength and will to win.

As the unconquerable Brown departed the ring for the dressing room, the 5000 fans in the Geneva Street emporium again gave him a standing ovation until he entered the dressing room door.

Brown's victory, however, was not without its price. He had suffered a badly cut eyebrow. By previous agreement between the Olympic Committee and fight managers, court plasters would not be used to shore up cuts, although this item was not strictly adhered to. But Navy coach Al Gibbs wouldn't risk his ace to possible serious injury and Brown had to default his match the following night.

It's problematical whether Henry Brown could have gone all the way. But if it had depended on fighting heart, we'll bet a steak dinner that Henry Brown would have had a seat on the plane that went to Australia.

—Rudy C. Garcia, JOC, USN



SERVICESCOPE

Brief news items about other branches of the armed services.

★ ★ ★

THE DAY OF THE ATOM-POWERED airplane may not be here yet, but it's right around that next corner. As the world's first aircraft to fly with an operating atomic reactor aboard, the B-36 intercontinental bomber, NB-36H, has been carrying out research leading to the development of a true atom-powered airplane.

In tests high over the Southwestern United States, effects of radiation upon instruments, equipment and the NB-36H's airframe are measured by the "hot" reactor which, although taken along for the ride, has not yet been used to power the flight. Methods of shielding the crew, reactor operators and electronic devices from radioactivity are tested, and new types of nuclear instrumentation are checked out.

The plane's dark blue nose differs sharply from that of a conventional B-36 and the huge vertical tail carries an orange radiation symbol that distinguishes this aircraft from all others. Airscoops on the fuselage aft of the wing cool the reactor when it is operating.

The low-powered reactor is never turned on until the plane is high over an unpopulated area and then only long enough to obtain the necessary test data.

★ ★ ★

A GIANT TELESCOPIC TRACKER capable of tracing a missile 300 miles away and which clearly shows fast moving aerial objects in natural color on the instrument's scope, has been developed by the Army Signal Corps.

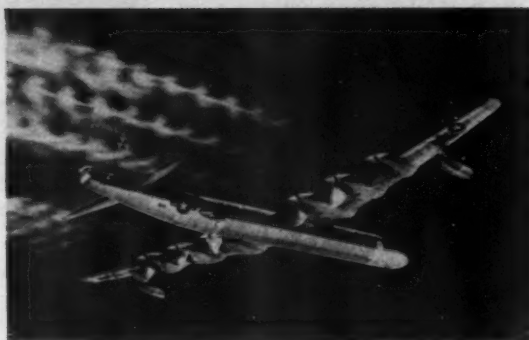
The new one-and-a-half ton optical colossus, which has a 400-pound lens system, takes black and white photographs of rockets, jets and other flying objects automatically.

The camera has a capacity for taking up to 20 pictures per second. To provide an accurate film record of target information, almost perfect frame to frame film registration has been achieved, even at the 20 fps speed.

Fast and accurate tracking is obtained manually by



SEE DUTY—With Signal Corps' new telescopic tracker operator can check fast-flying objects 300 miles away.



'A-PLANE—Air Force's nuclear test plane, NB-36H, uses props to high altitude where reactor can be safely tested.

"crystal ball" control of a servo-system. This device, used for several years in antiaircraft controls eliminates the free slewing method and the method of hand turned elevation and azimuth wheels. In practice, the operator or tracker, moves the "crystal ball" so that the image of the target, seen through the tracking telescope, remains centered on cross hairs. A seat for the operator is mounted on the pedestal and rides with it.

In addition to the "crystal ball" method, a synco-system can also be employed to orient the tracker. An object beyond the telescope's range could be picked up on radar which in turn would position the tracking telescope on the object even before the object was visible to the operator.

Self-contained in the platform of the tracker are the motor drives and controls necessary to move the scope into position.

The unit, now at White Sands, N. M., is being tested on a variety of vehicles and artillery carriers.

★ ★ ★

A NEW, EXTREMELY lightweight high-altitude research missile that raced 3800 miles an hour into outer space during its first flight may be used to obtain data in development of Department of Defense space vehicles.

First flight of the rocket, which is small enough to fit in a family-size station wagon, lasted 5.6 minutes. In this time the missile reached an altitude of 80 miles where it relayed measurements of primary cosmic radiation, temperatures and spin of the rocket and acceleration experienced by internal equipment.

The rocket firing was the first of a series of launchings to be made from different areas around the earth to probe the ionosphere, a layer of space above the stratosphere beginning 80 miles up. Data obtained from this and subsequent firings will be used to form a more complete picture of the upper atmosphere.

Called "Terrapin," the two-stage rocket is less than 15 feet long, six and a quarter inches in diameter at its thickest point, and weighs only 224 pounds.

A solid propellant rocket motor fires the Terrapin to 10,000 feet in six seconds at a speed of 1900 miles an hour. At that altitude the first stage of the missile

separates from the second stage which coasts another 30,000 feet higher. Then the second-stage motor shoots the *Terrapin* to 50,000 feet at a maximum speed of Mach 5.8 (5.8 times the speed of sound), or about 3800 miles an hour. The missile coasts the rest of the way to peak altitude. At maximum velocity the rocket experiences temperatures in excess of 1000°F. A third-stage rocket for the *Terrapin* which would enable it to climb to altitudes of 200 miles and higher in only a few seconds more time is in the design stage.

The research missile and its collapsible zero-length launcher were specially designed for the upper atmosphere research program. It carries special miniaturized instrumentation weighing only six pounds.

The instruments, which are housed in *Terrapin's* "warhead," make use of several new electronic principles, including printed circuits, an all-transistorized telemetering (radio) system, a Geiger counter to measure radiation and a new design transmitter. The instrumentation is "so simple" it was built and assembled by high school and university students. Special protective devices are built into both the rocket and instruments to shield the sensitive equipment from the intense heat.

The *Terrapin* is claimed to be one of the cheapest and most portable high performance rockets of its kind, and its cost reputed to be only a fraction of that of missiles previously used to obtain high-altitude data.

★ ★ ★

THE FIRST SPECIAL FORCES (Army) reserve group in the history of the U.S. is now being organized in the New York-New Jersey area. They will be trained to operate as guerrillas behind enemy lines.

All recruits must be "double volunteers." This means they must volunteer for airborne and volunteer to operate behind enemy lines during hostilities involving the U.S. on a sustained basis.

Physical and mental requirements are high. The men selected, for the most part, will be expected to converse in at least one foreign language or show an aptitude for learning one readily.

Training hours will be similar to those required of other reserve organizations — 48 two-hour training periods a year and two weeks of summer camp. Additional week-end drills may be scheduled to accomplish certain phases of the training.



ARMY'S VTO experimental plane (shown in artist's conception) uses propeller's slip stream for straight-up lift.



LONG RANGER—B-36 aircraft of the USAF Strategic Air Command line up along airstrip after training flight.

SIX BOTTLES OF AIR captured by Signal Corps scientists from the borderline of outer space—only existing samples of pure air from very high altitudes—are expected to help solve basic mysteries in rocketry and geophysics.

The samples were collected 75 miles up by steel bottles inside the nose cones of two 20-foot Navy *Aerobee* rockets. As the rockets reached peak altitude, the bottles popped open one at a time, then snapped shut to trap eight quarts each of the very thin air. The nose cones were then parachuted to earth.

The captured air is so thin that it would not support life. Compressed to the density of normal breathing air, the 48 quarts would take up less than one cubic inch. A human being or animal living at earth level would literally burst from internal body pressures if sealed up in a room filled with such thin air. Complete analysis of the samples will take several months, but Signal Corps scientists expect to prove whether common gases begin separating into layers at high altitudes.

★ ★ ★

A NEW "MECHANICAL MULE" is scheduled to give the Army's weary combat soldier a welcome lift.

Designed for off-road mobility in forward combat area the vehicle is a four-cylinder version of the famed four-footed animal that took Army units and material over the roughest sort of terrain. Weighing only 750 pounds, and capable of carrying more than its own weight, it can be transported by truck, plane or helicopter and can be dropped by parachute.

The "mule" is the first of its type to be added to the Army's mobile family since development of the jeep.

Capable of moving heavy loads from one mile up to 25 miles an hour, the vehicle can climb a 72 per cent slope. It is 100 inches long, 46 inches wide, with a low silhouette of 27 inches.

Designed primarily as a cargo carrier for weapons, ammunition or other material that otherwise would have to be hand-carried over rough terrain, the "mule" also can be used as a mount for the 106mm recoilless rifles.

First deliveries are scheduled within a year. Previously five experimental models had been built and put through a series of rigid tests.

THE BULLETIN BOARD

What You Should Know and Do About NSLI, USGLI Insurance

ON 1 JAN 1957, when the Servicemen's and Veterans' Survivor Benefits Act (Public Law 881, 84th Congress) goes into effect, new and broader death benefits will replace the automatic Servicemen's Indemnity, commonly known as "\$10,000 free insurance."

This change will affect many Navymen who dropped or waived premiums on U. S. Government (USGLI) or National Service Life Insurance (NSLI) policies when the free insurance came along. For instance, those who are eligible can now give their dependents the protection of both the new death benefits and "GI insurance." But, after 1 May 1957, if you die while the premiums on your old policy are still under waiver your dependents will be entitled only to the death benefits in existence before the new law. And, should you put off reinstating or replacing a lapsed or surrendered policy until after 1 Jan 1957, then die before you get a chance to do so, you would not be covered by your insurance.

These matters have probably been explained to you already by your insurance officer. However, just in case you haven't yet decided what to do, here's some important information:

• Policies Surrendered for Cash—

If you surrendered a permanent plan policy for cash while on active duty after 24 Apr 1951 and before 1 Jan 1957, this applies to you.

On and after 1 Jan 1957 you may obtain, either while in active service or within 120 days after separation, a new policy at the premium for your attained age on the *same plan* and not in excess of the amount surrendered, or you may reinstate your old policy. If you're being separated from active duty before 1 Jan 1957 you cannot reinstate or replace such a policy while still in service, but after separation you have 120 days in which to do so without having to take a medical examination.

Personnel now on active duty who have had any break in service of more than 120 days since the date



of surrender or expiration do not have the right to reinstate or replace such policies unless they took that action within the 120-day period after they were separated. Breaks in service of 120 days or less would not affect that right, since it has been preserved by your return to active duty within the required period.

Those who are eligible may reinstate their surrendered permanent plan policies by paying the premium for the effective month of reinstatement, plus the cash reserve on the old policy. In addition, those reinstating USGLI (this doesn't apply to NSLI) will have to repay any termination dividends they received upon surrender for cash in or after 1953, plus interest at 3½ per cent per year. The cash outlay for reinstatement can be reduced by borrowing against the reinstated loan value of the policy. However, when you borrow against the policy you create a debt against it, and you must repay the loan at four per cent annual interest.

Replacing permanent plan insurance with a new policy requires a smaller initial cash outlay, but your premiums will be larger because they'll be based on a later insurance age than the one on your old policy. To do this you merely pay the first month's premium at your insurance age as of the effective date of the new policy, or, to take advantage of a slightly younger insurance age,

you can request that your policy be antedated. In that case the effective date of the new insurance may be the first day of any month back to and including 1 Jul 1956, but no earlier. However, insurance coverage under antedated contracts will not begin until 1 Jan 1957.

In order to provide continuous protection, the Veterans Administration will accept applications for reinstatement or replacement before 1 Jan 1957, even though Public Law 881 does not go into effect until then. This is done with the understanding that such applications will be considered to have been filed on 1 Jan, and no insurance coverage is granted before that date. If you are eligible and meet all the requirements your policy will go into effect on New Year's Day.

• **Five Year Level Premium Term Insurance**—If you had a five-year term policy, the term of which expired while you were on active duty after 25 Apr 1951 and before 1 Jan 1957, you can replace it with an equivalent amount of the same type of insurance, with premiums based on your age at the time of replacement. (You may also replace such a policy if the term expired during a break in service of 120 days or less within the above period.)

However, in order to do this you must apply for the new policy while you are in active service or within 120 days after separation. Applications must be accompanied by payment of premiums and evidence of good health satisfactory to the Administrator of Veterans Affairs.

As in the case of policies surrendered for cash, applications for replacement of expired term policies will be accepted by the VA before 1 Jan 1957 in order to provide continuous coverage, but they will be considered to have been filed on that date and will not provide insurance protection before then. If you are eligible, have met all the requirements and your health is as good on 1 Jan 1957 as it was when the application and report of phy-

sical examination were submitted, your insurance will be made effective on New Year's Day. Evidence of good health on 1 Jan 1957 may be furnished in the form of a certificate to be completed by the applicant on or after that date. The VA will distribute these certificates to all applicants in late December of this year.

If your five-year term National Service Life Insurance has lapsed since 23 Jul 1953 for failure to pay either or both of the last two monthly premiums of the term period, the new law also allows you to renew or reinstate such insurance, provided you do so before the expiration of the next succeeding term period. The VA will forward reinstatement applications and instructions to all individuals in this category without application by the policyholder. To reinstate, you must then submit the required premiums and evidence of good health.

These rights also apply to those who were Naval Aviation Cadets or Midshipmen of the Naval Academy on 25 Apr 1951, and were later commissioned or enlisted.

• **Application for Reinstatement or Replacement** — Inquiries, or completed applications, about reinstatement or replacement of policies should be addressed to:
Veterans Administration Insurance Center

*Attention: Replacement Section
Munitions Building
Washington 25, D.C.*

If you don't know the policy number of your surrendered insurance, forward your application anyway and the VA will add that information. **MONEY REQUIREMENTS FOR REINSTATEMENT OR REPLACEMENT MUST BE MET BY 1 JAN 1957 IF YOU WANT CONTINUOUS INSURANCE COVERAGE.**

The following forms should be used:

- For replacing expired term insurance—VA Form 9-4353
- For replacing surrendered permanent plan insurance—VA Form 9-4354.
- For reinstating surrendered permanent plan insurance — VA Form 9-4363

When any of the above forms are completed, the legend "Section 623" should be conspicuously written or

stamped across its top margin for identification purposes. An application completed before 1 Jan 1957 should (in addition to premium payments, etc.) be accompanied by a supplementary statement showing that you understand the special conditions under which the VA accepts the application. You should be able to get copies of this statement from your insurance officer.

• **Post-service Five-Year Nonconvertible Term Insurance** — If you're being separated from the Navy before 31 Dec 1956, you've probably been informed by now that you cannot apply for post-service Five-Year Nonconvertible Term Insurance after that date. But, just to make sure, here's another reminder:

Applications must be submitted on VA Form 9-4356 and accompanied by a check or money order made out to the Veterans Administration for the proper premium.

They must be received by the VA, or postmarked, by 31 Dec 1956, or they must be delivered to an authorized representative of the Navy or Marine Corps by that date for forwarding to the VA.

The date of application cannot be earlier than the date of separation.

• **Service-Connected Disability Insurance**—The new laws do not make any major changes in post-service nonparticipating insurance for service-connected disability. This will still be available after 1 Jan 1957 to members of the armed forces who are disabled while on continuous active duty or active duty for training for not less than three, or more than six months under the Armed Forces Reserve Act of 1952, as amended, Subsection 262 (c) (1).



"Of all the miserable ports, this takes the cake!"

The insurance plans offered to personnel in this category are Five-Year Level Premium Term, Ordinary Life, Thirty-Payment Life, Twenty-Payment Life, Twenty Year Endowment at Age 60 or Endowment at Age 65.

Personnel released or separated from active duty under other than dishonorable conditions are eligible for this insurance provided they are found by the Administrator of Veterans Affairs to be suffering from a disability or disabilities rated at 10 per cent or more, and except for which they would meet the established qualifications for insurance under the good health provisions of the National Service Life Insurance Act of 1940, as amended. This does not apply if the disability is a dental condition for which a rating is made only for purposes of dental treatment.

Upon application and payment of premium to the VA the insurance may be granted any time within one year after the date the Administrator of Veterans Affairs determines that the disability is service-connected.

Waiver of premiums may be granted on this type of insurance in accordance with the provisions of section 602(n) of the National Service Life Insurance Act of 1940, as amended. Except that no one who is totally disabled will be granted insurance on the endowment plan, a waiver will not be denied on the ground that the disability became total before the effective date of the insurance. Initial and subsequent premium payments should be kept up until the VA has determined that you are entitled to disability waiver of premiums.

If the person to be insured is mentally incompetent, application may be made for him by his guardian or other legally authorized representative.

• **Waivers**—Waivers of premiums (except on service-connected disability insurance) will no longer be granted after 31 Dec 1956, but waivers in effect on that date may be continued or terminated at any time.

However, if you keep your policy under in-service waiver beyond 1 May 1957 and die on or after that date, your widow, children or

parents will not be entitled to the dependency and indemnity compensation provided for in Public Law 881. Instead, they will receive only the VA death compensation payments in effect before January 1957, which in most cases are lower than the new benefits. (Reservists should take note of the fact that effective 1 Jan 1957 their benefits now payable under the Federal Employees Compensation Act are cancelled, except that survivors already receiving such benefits can elect to continue doing so. The new survivor benefit laws apply in the same way to all components of the Armed Forces, without any distinction as to whether death occurs in peace or war.)

In some cases an individual might benefit by retaining his insurance under waiver—for example, a bachelor with no dependents or a man in pay grade E-1 or E-2 with a wife and four or more children under 18. In the latter case (because of the widow and large number of children) the payments to survivors could be greater under the old peacetime VA compensation rates than they would under Public Law 881. Personnel who might come under this category should decide



"Medium or rare?"

which election is to their advantage before 1 Mar 1957.

If you want to terminate a waiver, so that your widow, children or parents can receive the benefits of the new law, you should make sure that the VA receives the required premium for the premium due date prior to 1 May 1957. In other words, if the premium due date is 25 April, the required premium should reach the VA on or before that date. Otherwise, the termination of waiver will not be effective until 25 May, the next due date of the premium, and your survivors would not be entitled to the benefits of the new law if you should die during the period from 1 to 24 May.

Five-year level premium term policies now under waiver may be converted to permanent plan policies at any time by terminating the waiver, submitting an Application for Conversion (VA Form 9-358) and sending in the required premium. Tender of the required premium will be considered by the VA as a request for termination of waiver. Advance authorization for insurance allotments may be forwarded as early as 1 Nov 1956, with first pay dates as late as April 1957.

All persons who have, or believe they have, NSLI or USCLI policies under waiver will complete at least two copies of VA Form 9-5782 ("Veterans Administration Request for Information/Action on Section 622 Waiver—Government Life Insurance") and forward the original to the Veterans Administration, Insurance Center, Munitions Building, Washington 25, D.C. The other copy will be retained with the individual's service record.

Officers certifying to service information in item 10, Part I, of this form will make sure that the individual completing the form has accurately filled out all the items from one through nine, and especially items four through eight.

If you indicate on this form that you intend to resume payment on a policy under waiver (by checking Item 14a or b of Part 1), remember that the waiver will still remain in effect until the VA receives the premium allotment or your direct remittance. If you check Item 14c, Part 1, the pure risk insurance portion of your permanent plan insurance will be returned by the VA without further application.

The VA will acknowledge all waiver cancellation requests by returning Part II of VA Form 9-5782 to the individual concerned. This form should then be delivered to your commanding officer for further processing and so that the information on it can be transcribed on the duplicate copy in your record.

Personnel who do not want to cancel their waivers will not receive any acknowledgement from the VA.

Requests for a retroactive allotment for payment of premiums will be approved if the late submission is definitely beyond the control of the allotter.

If you have term insurance under waiver and don't want to pay the required premium, but do want your dependents to be eligible for the increased survivor benefits authorized under Public Law 881, you should submit Form 9-5782 to the VA for termination of your insurance waiver, then let your term policy lapse for nonpayment of premiums.

Sample forms, further details on the insurance provisions in the new law and directions to commands administering the program are contained in BuPersInst 1741.3B.

We'll Bet This Is a New High In Shipping Over Records

Here's a man who was really "high" when he shipped over.

He's H. R. Johnson, AMC (AP), usn, who was reenlisted while piloting an R5D, 5000 feet above the Naval Air Station at Glenview, Ill. At the end of this four-year hitch the veteran enlisted pilot will have completed 21 years of service.

The chief underwent flight training as a second class petty officer and was advanced to AM1 while still in training. In 1943 he was assigned to training bombardier-navigators at Pensacola, Fla., and from 1951 to 1953 he served with Air Transport Squadron 24 at Port Lyautey, French Morocco.

LT J. D. Langford, usn, Recruiting Officer on the Staff of the Chief of Naval Air Reserve Training, swore in Johnson during the airborne ceremony.

QUIZ AWEIGH ANSWERS QUIZ AWEIGH IS ON PAGE 53

1. (a) F8U Crusader.
2. (b) 1015 mph.
3. (c) Guided missiles.
4. (b) 1500 mph.
5. (c) CVHA 1.
6. (c) Marines and helicopters.

Senior Petty Officers Meet to Discuss Navy's Career Problems

History recorded another first when at Bainbridge, Md., and San Diego, Calif., some 220 senior petty officers stood up on their feet and said precisely what they thought about the Navy and where it could be improved.

It wasn't just a gripe session—no novelty to history. The men had gathered officially to make recommendations concerning steps to be taken to make the Navy career more attractive to enlisted men and their families.

The meeting was held at the invitation of the Secretary of Defense. So far as is known, this is the first time in the history of the Navy in which representatives of enlisted men were officially asked to make recommendations concerning their own status.

More than 140 were selected by their own commands as delegates on the basis of their own individual experience, personal character, leadership, technical qualifications and familiarity with the opinions of other enlisted men.

In addition, some 60-plus NavCATs—members of Navy Career Appraisal Teams—were individually invited to attend.

More than 3000 years of service in the Navy was represented. Members averaged some 13 years' service apiece, although many had more than 20 years' active duty behind

them and a few were serving their first hitch. Each individual represented some 5000 other enlisted men.

Each of the Navy's 61 ratings was represented by at least one delegate. He was either a second class, first class or chief petty officer.

The discussions ranged from such concrete problems as military pay and the problems of Navy life to such less tangible factors as the prestige and status of the enlisted man.

One of the more controversial questions raised was the wisdom of paying men in technical specialties, such as electronics or radar, more money than men in other, less critical, specialties.

Except for guidance provided by the Head of the BuPers Career Activities Branch, the meetings were strictly enlisted. Suggested topics were presented by the career men and those that required detailed study were turned over to panels of 10 to 12 delegates for study. When the panels came to an agreement, the results were read to the assembled delegates for an all-hands discussion period and comments. Each panel chairman was allowed 15 minutes to present his group's findings and each presentation was followed by a limited discussion period.

So after the meetings were held, what happens?

(The meetings were held at the request of the Secretary of Defense to provide data for the Defense Advisory Committee on Professional and Technical Compensation—better known as the Cordiner Committee. Similar enlisted career conferences were held by the Army, Air Force and Marine Corps.)

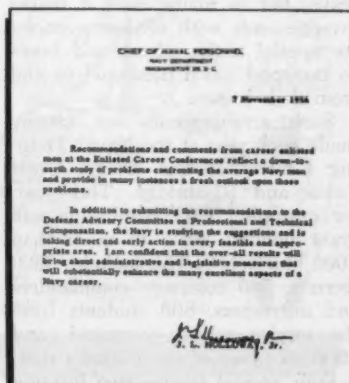
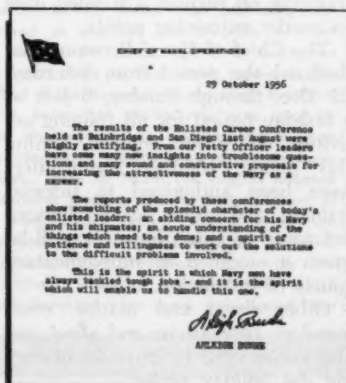
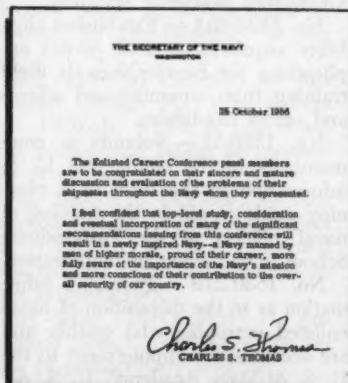
As a result of the Navy's two conferences—which covered a total of six days—a joint report numbering more than 450 pages, including a 100-page summary, was submitted to the Cordiner Committee.

This lengthy report contained more than 506 recommendations covering more than 20 different subjects ranging from pay and housing to training and the importance of leadership.

However, not only is the Cordiner Committee giving these recommendations serious study but the Navy itself, in an independent action, is also making use of the conclusions in an effort to strengthen favorable aspects of a Navy career and to correct the shortcomings reported by the career conferences.

These recommendations are receiving the direct and personal attention of the Secretary of the Navy, the Chief of Naval Operations and the Chief of Naval Personnel. They are mapping plans for carrying out many of the recommendations within the Navy's jurisdiction.

The letters shown below represent the importance attached to the Enlisted Career Conference panels. These letters, by three of the top Navy leaders, praise the Conference, its results, and the excellent reports submitted by career Navymen making up the panels. The reports have been given to a Defense Department Committee.



DIRECTIVES IN BRIEF

This listing is intended to serve only for general information and as an index of current Alnavs and NavActs as well as current BuPers Instructions, BuPers Notices, and SecNav Instructions that apply to most ships and stations. Many instructions and notices are not of general interest and hence will not be carried in this section. Since BuPers Notices are arranged according to their group number and have no consecutive number within the group, their date of issue is included also for identification purposes. Personnel interested in specific directives should consult Alnavs, NavActs, Instructions and Notices for complete details before taking action.

Alnavs apply to all Navy and Marine Corps commands; NavActs apply to all Navy commands; BuPers Instructions and Notices apply to all ships and stations.

Alnavs

No. 49 — Announced approval by the President of the report of a selection board which recommended USMC officers for temporary promotion to grade of lieutenant colonel.

No. 50 — Announced the convening of a line selection board to recommend USN and USNR officers on active duty for temporary promotion to the grade of lieutenant.

No. 51 — Concerned with the procurement of non-stock items, it modifies Alnav 23.

No. 52 — Announced that billets for NROTC program were still open

and repeated the deadline date for applications.

No. 53 — Modified BuPers Inst. 1520.15C, concerned with officers' post-graduate educational program.

No. 54 — Announced approval by the President of the reports of selection boards which recommended USN and USNR officers to grade of Captain in Medical Corps, Supply Corps, Dental Corps and Medical Service Corps, of Commander in Medical Corps, Supply Corps, Chaplain Corps, Civil Engineer Corps, Dental Corps, Medical Service Corps and Nurse Corps.

No. 55 — Announced approval by the Secretary of the Navy of a selection board which recommended warrant officers of the Marine Corps for promotion to Chief Warrant Officer, W-4 (permanent), Chief Warrant Officer, W-4 (temporary), Chief Warrant Officer, W-3 (permanent), Chief Warrant Officer, W-3 (temporary), Chief Warrant Officer, W-2 (permanent), and Chief Warrant Officer, W-2 (temporary).

No. 56 — Announced the commissioning of Enlisted Personnel District of Pacific and requested that all messages concerned with assignment and distribution of enlisted personnel of that area be revised.

No. 57 — Described general pro-

visions of care to be provided from civilian sources under the Dependent Medical Care Act, effective 7 Dec 1956.

Instructions

No. 1000.7A — Lists sources of information pertaining to the programs and opportunities available to naval personnel.

No. 1120.12E — Outlines eligibility requirements and processing procedures whereby certain Naval Reserve and temporary officers in the grades of ensign through lieutenant may be considered for appointment as permanently commissioned USN officers.

No. 1120.22B — Announces procedures for the administration of active-duty agreements for USNR officers and invites applications from eligible officers who desire such agreements.

No. 1336.2B — Sets forth the procedures by which enlisted personnel may request enrollment in the Naval School of Music and includes information regarding the courses of instruction available.

No. 1440.18 — Establishes a program for the adjustment of the enlisted rating structure through formal school training and through in-service training.

No. 1510.69A — Outlines a program for advanced technical education and training of enlisted personnel and describes procedures to be followed in nominating those qualified for participation in the Navy Enlisted Advanced School program.

No. 1520.2A — Sets forth the procedures to follow in the case of a naval officer enrolled under the provisions of one of the college training programs who does not maintain a satisfactory academic standing.

No. 1520.20A — Establishes eligibility requirements and invites applications for heavier-than-air flight training from commissioned officers and officer candidates.

No. 1520.51 — Submits to commandants in the continental U. S. information in the form of a planning guide to aid in the training of naval officers at the Postgraduate School in the event of mobilization.

No. 1530.21B — Furnishes information as to the disposition of naval enlisted personnel who qualify and are accepted for appointment to the U. S. Military Academy, U. S. Air

Christmas Leave

Each year, within the bounds of national security and the maintenance of essential services, it is the Navy's policy to grant leave to as many men as possible in order that they may spend the Christmas holidays with their families.

The Navy not only authorizes leave, but in many cases it makes arrangements with civilian agencies for special trains, planes and buses to transport naval personnel to and from their homes.

Such arrangements are usually made each year at the Naval Training Centers at San Diego, Great Lakes and Bainbridge. This year, for example, NTC Bainbridge will grant holiday leave to more than 7000 bluejackets. This includes 3800 recruits, 500 company commanders and instructors, 800 students from the service school command, and 1900 members of the Center's staff.

Four special trains—two heading

North and two South—and more than 30 buses, have been scheduled for the mass exodus of Navymen scheduled for Saturday, 22 Dec. Many of the special buses and trains will depart directly from the training center. In addition, a fleet of 16 shuttle buses will whisk those traveling on regular scheduled lines to nearby entraining points.

The Chief of Naval Personnel has declared the period from Saturday, 22 Dec, through Sunday, 6 Jan, as a holiday period for all training activities under his control. During this period, training commanders have been authorized to suspend training and grant leave. Persons not going on leave, however, will be given a modified or supplementary course of instruction.

Other naval and marine commanders, both ashore and afloat, are also encouraged to grant leave during the holiday period.

Force Academy or U. S. Coast Guard Academy.

No. 1533.14B — Standardizes procedures for submission of applications and the reporting system for recommending prospective NROTC graduates for appointment to commissioned grade.

No. 1741.3B — Provides information contained in Public Law 881, 84th Congress, which applies to government insurance available to military personnel on active duty or at time of separation, including retirement.

No. 1926.2A — Provides information concerning the retention and involuntary release of Naval Reserve officers.

Notices

No. 1520 (25 September)— Provided information concerning the Gunnery Officers (Administrative) course at Great Lakes, Ill.

No. 1410 (4 October)— Announced interim qualifications for advancement to pay grade E-4 for use in the November 1956 service-wide examinations for certain selected emergency service ratings.

No. 1120 (5 October) — Announced Change No. 1 to BuPers Inst. 1120.27, which is concerned with the nursing education program.

No. 1085 (8 October)— Provided information on the availability and effective date of Record of Practical Factors (NavPers 760) for certain ratings.

No. 1571 (10 October)— Commented on various aspects of the administration of active duty for training.

No. 1120 (16 October) — Announced names of candidates to be considered for appointment to warrant and commissioned grade by a selection board to be convened in February by the Secretary of the Navy.

No. 1416 (16 October) — Announced Change No. 1 to BuPers Inst. 1416.1B, which is concerned with professional fitness for promotion of officers.

No. 1306 (18 October) — Announced Change No. 1 to BuPers Inst. 1306.22B, which is concerned with enlisted personnel assigned to duty as instructors.

No. 5050 (18 October) — Announced annual conference for review of postgraduate program.

WHAT'S IN A NAME

Tonnage

Whenever you see your ship's "vital statistics" you'll find displacement listed right along with her length, beam and armament. This figure, indicating the weight of water she actually displaces, either when fully loaded or when "light," is a special part of a series of weights and measures known to the maritime world as tonnage.

Tonnage nowadays is used to mean a number of things related to the carrying capacity or weight of a merchant ship, the whole amount of a nation's shipping, perhaps, or the total amount passing through a canal, entering a particular port, or controlled by a single steamship line.

The word ton is a variant of tun, and comes from the old Anglo-Saxon word *tunne*, meaning a large cask or vessel. According to one authority, *tonnage*, an older form of today's *tonnage*, "appears to have been used in the 16th century for indicating a ship's hold capacity for carrying tunnes (later tuns) of wine. The tun, or cask of 252 old English wine gallons with its contents, closely approximated the long ton weight, 2240 pounds, and it occupied a space of nearly 40 cubic feet (the volume of one measurement ton). Hence the relationship of the ton burden and the shipping ton."

In addition to the long ton and the measurement ton, there is the 2000-pound short ton and the register ton, the latter being a unit of volume (100 cubic feet) used for calculating such things as dry-dock charges and earning power of a ship.

Perhaps the earliest U. S. rules for measuring ship tonnage were established by Act of Congress in 1799. This Act provided that tonnage should be ascertained as follows: "From the extreme length (of the ship) in feet deduct three-fourths of the breadth; multiply the remainder by the breadth and this product by the depth; divide the last product by 95 and the quotient will be the register tonnage." In this rule the depth of a double-decked vessel was arbitrarily assumed as one-half the breadth, so that it was to the advantage of a shipowner to build ships without much regard to the effect of the deepening upon other qualities.

A somewhat similar rule was used by the English, and is still sometimes used in measuring yachts and other pleasure boats. Then, in 1835, the English adopted Newton's theorem for the determination of a considerably better system based on contents of solids bounded by irregular surfaces. They followed this with the Merchant Shipping Act of 1854, which laid down an even more complicated (but

even more accurate) system to determine the register tonnage or net register tonnage.

This latter system (with minor changes) was adopted for U. S. use by an Act of Congress of 6 May 1864, and went into effect on 1 Jan 1865. Subsequent Acts made American practice almost identical with the English system.

Here, with their meanings, are the four most common ways to express tonnage:

- **Gross tonnage** is the entire cubic capacity of a ship, or the total internal cubic measurement of the number of register tons (units of 100 cubic feet) contained within the ship's hull, less such spaces as those in which no fuel, cargo, or stores are carried.

- **Net tonnage**, or net register tonnage is derived from the gross tonnage by deducting the total cubic feet of such spaces as crew's quarters, storerooms, chart-room, passenger spaces and an allowance for the ship's propulsion spaces. The resulting tonnage figure is that upon which dues or taxes are usually charged, and also offers a basis for estimating a vessel's available cargo space or bulk capacity.

- **Deadweight tonnage** (or tons "burden") is derived from the displacement of a vessel, and indicates that the craft in question is capable of carrying a load of a certain number of tons of 2240 pounds—or long tons.

- **Displacement tonnage** may be of two types, "light" or "loaded." For merchant ships, light displacement is commonly the weight in long tons of a vessel without anything except her equipment on board; the Navy uses a light displacement (indicated in long tons) which is figured after a vessel is ready for service in every respect, with permanent ballast in place and liquids in machinery at operating levels. Consumable stores, crews and their gear, and aircraft are not included, however.



Selective Emergency Service Rates Expanded for Regulars In Grades E-2, E-3, E-4

More rates have been added to the list of Selective Emergency Service rates which have been activated for Regular Navy enlisted personnel. These selective emergency service rates will be used to identify Regular Navy personnel in pay grades E-2, E-3 and E-4.

It should be noted that as a result of this program, advancement to petty officer third class will not be effected in the general service rating after any selective emergency service rates, related to the general

service rating, have been activated for USN personnel.

For example, a Regular Navyman in pay grade E-3, who is a striker for the aviation machinist's mate rating (AD), will advance to either ADJ3 or ADR3. The man may not advance to AD3 nor to the emergency service rate of ADP3 (Aviation Machinist's Mate, Propeller) since ADP has not been activated as a selective emergency service rate.

(Naval Reserve personnel are not affected by this program since they will be examined and promoted in their respective emergency service ratings as before.)

In addition to the Selective

Emergency Service Rates which have already been activated, here are the other ratings which have been opened at pay grade E-4 to Regular Navy personnel:

- Under *Aviation Ordnanceman*: Aviation Ordnanceman B (Utility); Aviation Ordnanceman T (Turrets).

- Under *Aviation Boatswain's Mate*: Aviation Boatswain's Mate U (Utility); Aviation Boatswain's Mate G (Gasoline Handler).

- Under *Aviation Electrician's Mate*: Aviation Electrician's Mate M (Electrician); Aviation Electrician's Mate I (Instrument Repairman).

- Under *Aviation Structural Mechanic*: Aviation Structural Mechanic S (Structural Mechanic); Aviation Structural Mechanic H (Hydraulic Mechanic).

The first service-wide examinations for advancement in these rates will be for AEM3 and AEI3, held on 16 Nov 1956. The first service-wide examination for advancement to AOU3, AOT3, ABU3, ABC3, AMS3 and AMH3 will be conducted in February 1957. Date for the first examinations for advancement to ATR3, ATS3, and ATN3 is in May 1957.

The revised list of Selective Emergency Service rates which have been activated for Regular Navy personnel is contained in BuPers Notice 1223 of 31 Aug 1956. The instruction which established the SESR Program, BuPers Inst. 1223.1 remains in effect as changed by the latest notice.

New Regulations Established For Sending Official Mail

Gone are the days of stamp-licking and the use of franked envelopes for official Navy mail.

The Navy abolished the practice of affixing postage stamps and the use of franked envelopes bearing the penalty indicia statement on 1 Oct 1956. Marine Corps activities will follow suit on 1 Jan 1957.

Replacing the penalty indicia statement and postage stamps on the upper right hand corner of envelopes, cards, labels, tags and wrappers used to transmit official mail will be the printed statement "Postage and Fees Paid, Navy Department."

All mailing covers will also bear

Midwatch Log Hails the New Year

In accordance with a fine old custom, personnel who hold the final watch of the year are accorded the doubtful privilege of writing up the ship's log in rhyme. To encourage this practice ALL HANDS has, from time to time reprinted excerpts considered to be representative of those submitted. This year, however, we are presenting in its entirety, with but minor revisions, the literary efforts of LTJG Arthur R. Evans, of the midwatch of USS *Baltimore* (CA 68) as a good sample of midwatch log.

*I had been on watch but a little while,
When I spied a babe, dressed in just a smile.
Who was marching down the Twenty-first Pier,
Singing and shouting "Happy New Year."
He was met by an Old Salt bent over with gout
Who muttered "Welcome aboard. I'm on the way out."
"Listen closely, my boy, for I'm not too well,
And I'll be gone when they sound the bell.
We're moored portside to the Twenty-first Pier,
And all of Mare Island knows that we're here.
With standard lines out and each one doubled,
The wind and the tide should give you no trouble.
You must know your neighbors before it's too late.*

*There's Mount Olympus, AGC-8.
And many fine ladies of Pacific Fleet,
Whom, when you're older, you'll certainly meet.
We're getting service from the pier as you know,
And condition Yoke is set, third deck and below.
On second deck and above, Xray is set,
Keep your powder dry and gauge glasses wet."
The New Year said "I relieve you of command,"
Then saluted the Old Salt and shook his hand.
The church bells sounded, it was New Year, all right,
And the good old model vanished from sight.
Thank God for your blessings, the big and the small,
And a Happy New Year for one and for all.*



in the upper left hand corner, under the return address, the printed statement "Official Business." These statements cannot be handwritten. They are to be printed either by a hand stamp or typewritten until printed covers can be obtained.

The new requirements apply to official mail transmitted within, among, and between the United States, its territories and possessions, Army-Air Force APOs and Navy FPOs. Mail to foreign countries will continue to require affixed postage.

Current supplies of envelopes and labels bearing the penalty indicia may be used until exhausted on all classes of official ordinary mail weighing less than four pounds. Mail over four pounds sent with the penalty indicia must be endorsed "Postage and Fees Paid, Navy Department."

Mail requiring special services, such as air mail, special delivery, registered, etc., will be endorsed appropriately on the address side of the cover and also bear the impression "Postage and Fees Paid, Navy Department."

Present style air mail envelopes should continue to be used but must bear the fee paid statement instead of stamps.

SecNav Inst. 27100.1D gives complete details on how commands should dispose of postage stamps they currently have on hand. It also contains information as to how the Post Office Department will be reimbursed for official Navy mail.

List of New Motion Pictures Scheduled for Distribution To Ships and Overseas Bases

The latest list of 16-mm. feature movies available from the Navy Motion Picture Service, Bldg. 311, Naval Base, Brooklyn 1, N. Y., is published here for the convenience of ships and overseas bases. The title of each picture is followed by the program number.

Those in color are designated by (C) and those in wide-screen processes by (WS). Distributions began in October.

These films are leased from the movie industry and distributed free to ships and most overseas activities under the Fleet Motion Picture Plan.

The Tall Men (629) (C) (WS):

Western Drama; Clark Gable, Jane Russell.

Earth vs the Flying Saucers (630): Science-Fiction; Hugh Marlowe, Joan Taylor.

The Mountain (631) (C): Drama; Spencer Tracy, Robert Wagner.

Apache Ambush (632): Western; Bill Williams, Adelle August.

The Man With the Golden Arm (633): Drama; Frank Sinatra, Eleanor Parker.

Love Is a Many Splendored Thing (634) (C) (WS): Drama; William Holden, Jennifer Jones.

World Without End (635) (C): Science Fiction; Hugh Marlowe, Nancy Gates.

Comanche (636) (C): Drama; Dana Andrews, Linda Cristal.

The Secret of Treasure Mountain (637): Melodrama; Valerie French, William Prince.

The Rack (638): Drama; Paul Newman, Walter Pidgeon.

The View From Pompey's Head (639) (C) (WS): Drama; Richard Egan, Dana Wynter.

Francis In the Haunted House (640): Comedy; Mickey Rooney, Virginia Welles.

Davy Crockett, King of the Wild Frontier (641) (C): Action Drama; Fess Parker, Buddy Ebsen.

Behind the High Wall (642): Drama; Tom Tully, Sylvia Sydney.

Tribute To a Bad Man (643) (C): Western Drama; James Cagney, Irene Pappas.

Selections of Promotions To CDR and CAPT Announced

The selection of 307 Regular Navy and Naval Reserve commanders and lieutenant commanders of the various staff corps on active duty for temporary promotion to captain and commander has been approved by the President.

Lieutenant commanders selected for temporary promotion to commander are: Civil Engineer Corps, eight; Dental Corps, 17; Supply Corps women, one; Chaplain Corps, 14; Nurse Corps, seven; Medical Service Corps, 13; Medical Corps, 43; Supply Corps, 66; Limited Duty Only, Supply Corps, one.

Commanders selected for temporary promotion to captain are: Dental Corps, 29; Chaplain Corps, four; Supply Corps, 45; Medical Service Corps, four; Med Corps, 55.

1. This jet fighter recently set a new American speed record. The aircraft is the (a) F8U Crusader (b) F7U Cutlass (c) F4D Skyray.



2. The jet aircraft can land aboard a carrier at a speed of 150 mph. This relatively slow speed is a world of difference compared to the speed record which the plane set, which was slightly over (a) 950 mph (b) 1015 mph (c) 1085 mph.

3. Here's another picture of a carrier jet fighter now in operation by the Fleet. Mounted under its wings are (a) auxiliary gas tanks (b) rockets (c) guided missiles.



4. If you answered the above correctly, you'll also know that the name of the above item is Sparrow I. Powered by a rocket engine, the Sparrow I can, in a few seconds after launching, reach a speed greater than (a) 2000 mph (b) 1500 mph (c) 2850 mph.



5. The above carrier is USS *Thetis Bay*. Formerly designated CVE 90, the ship underwent extensive modification and is now designated (a) CVS 1 (b) CVA 12 (c) CVHA 1.

6. Assigned to the Pacific Fleet, *Thetis Bay* will help introduce a new phase in naval warfare. Her main mission will be to carry (a) army troops and helicopters (b) vertical take-off aircraft (c) marines and helicopters.

If you have trouble with the answers, you'll find them on page 48.

Applying Current Facts to Use of Your Appliances Overseas

TRAVEL ORDERS FOR DUTY overseas frequently mean a thorough analysis of your personal possessions and household goods from the aspect of durability and usefulness in your future home. Not much point in carrying for thousands of miles items which will be neither appropriate nor useful.

Electrical appliances are a case in point. You may have a heart-warming array of gadgets and labor-saving machinery all of which is suitable for stateside use, but there is no assurance that they may be equally valuable in Paris, Guam or Yokosuka. Here are a few words of advice concerning the use of such equipment overseas:

First of all, get the basic facts about the characteristics of electric current in the country where the appliance is to be used. You should know the cycles, voltage, number of wires, and number of phases of the power supply; whether or not there is any restriction as to power consumption; and the stability of the current. If you are thinking in terms of an electric washer, you should determine the availability of hot water and the water pressure.

Here in the United States we normally have 115/230 volt, 60 cycle, three wire, single phase systems, without a power restriction on the 230-volt line. In general, appliances that are rated on the nameplate at a voltage within 110 to 125 or 220 to 240 will operate satisfactorily on any voltage within these ranges. In most other countries, the power supply differs in some, if not all, of these characteristics and many countries have power restrictions and oftentimes a fluctuating current. Because of the difference in power supply, some American concerns produce appliances especially engineered and manufactured for operation overseas.

How about a transformer? A transformer will do nothing more than step up or step down the voltage, and has no effect on the difference in cycle frequency. A transformer's use should be limited, for economy reasons, to equipment of comparatively low wattage consumption.

The difference between the domestic 60 cycle and the 50 cycle current in common use abroad presents a



"We went sailing and he ran out of wind."

problem. When 60 cycle machines are operated on 50 cycle, all appliances with timing mechanisms, or operated by motors, will run slower and longer for any given setting. On some machines, the motor, solenoids and timing devices may burn out.

Here's a rundown on what to expect:

- **Refrigerators and Food Freezers.** The better refrigerators and food freezers manufactured in the United States are built for 115 volts and will operate on either 50 or 60 cycles. Small transformers of 350 to 500 watts are sufficient to compensate for use on foreign voltages from 100 to 260 volts.

- **Electric Ranges and Hot Water Heaters.** An electric range is not suitable for use overseas unless power at about 220 volts is available, and unless no limitation exists as to power consumption. It may be advisable to have a range to suit the foreign power specifications wired in the United States by the manufacturer or by a dealer who has the manufacturer's drawings and wiring diagrams, rather than to attempt such an adjustment in the foreign field.

- **Automatic Washers and Dishwashers.** It is important that a 50 cycle machine be used in 50 cycle territory. Use of a domestic 60 cycle machine on 50 cycle might result in burning out the motor as well as improper operation of timing mechanisms. If either of the appliances is to be purchased for use both here in the States and later in a 50 cycle area, then it is recommended that a 50

cycle machine be purchased at the outset. When the 50 cycle machine is operated at 60 cycles, there is less chance of burning out the motor; however, under heavy load conditions some extension of the washing cycle may be desirable since the frequency difference will cause a shorter cycle than the setting on the timer.

- **Automatic Dryers.** Again the problem of power consumption should be considered, as most dryers have high power consumption. The majority of dryers can be adapted for operation on either 115 or 230 volts by a simple connection within the machine, and the motor is adequate for operation on either 50 or 60 cycles.

- **Food Waste Disposers.** These appliances are built for 120 volts, and the motors will operate on either 50 or 60 cycles. Where the power supply is about 220 volts, a step-down transformer should be used.

- **Room Air Conditioners.** Only a few models are built for operation on either 50 or 60 cycle without modification. The majority, which are manufactured for 60 cycle, can be modified to operate on 50 cycle by the addition of protective devices. The one-half horsepower models are built to operate on 115 volts, the three-quarter are available in either 115 or 230 volts, and the one horsepower and above units on 230 volts.

- **Heating Devices,** like irons, toasters, waffle irons, coffee makers, etc. Because of the high wattage consumption, it is cheaper to buy a heating device especially wired for the 220 volt circuits prevalent in most other countries than to purchase an expensive and relatively heavy transformer to make possible the use of 115 volt appliances.

- **Fans, Mixers, and Vacuum Cleaners.** Frequently, these appliances are available with 220 volt ratings. However, transformers can be used to adapt these specific household items already in your possession to the 220 volt circuits abroad. But in the case of the vacuum cleaner, it is more practical to buy a 220 volt machine than to use a heavy transformer which must be carried around with the cleaner.

- **Automatic Blankets.** Special 50 cycle controls are available as well as

specifically constructed transformers to adapt domestic blankets for operation on 220 volt, 50 cycle circuits.

- **Clocks.** It is essential that clocks be purchased specifically or adapted for 50 cycle operation.

- **Radios.** Short-wave radios are available and recommended for use abroad.

- **Phonographs and Tape Recorders.** These must be adapted for 50 cycle. Transformers are available for voltage changes.

- **Television.** Think twice before you take your television set abroad. In the first place, you can anticipate a charge of about \$100 for modification of a TV set of United States origin. In addition, installation costs vary according to conditions but you can anticipate an expenditure of about \$35. Then, when you return to the States, it will be necessary to re-modify the set. With one exception, TV sets purchased in Europe are quite expensive and cannot be used Stateside. The TV situation is different in Germany. Not only is the cost of modification less (about \$25) but the sets are provided with a switch so that the set need not be re-modified upon your return to the States.

In any event, be sure that your set will operate properly on the foreign power supply.

The characteristics of the electric services available in many of the foreign cities can be determined from a publication entitled *Electric Current Abroad*, published by the U. S. Department of Commerce, which can be purchased from the Superintendent of Documents, Government Printing Office, Wash. 25, D. C. for 20 cts.

Fleet-Based Medics May Be Ordered to TAD Ashore To Serve Navymen, Dependents

Medical officers assigned to certain ships and other Fleet units are now being used at shore installations on a temporary duty basis where such assignment results in better utilization of their service. This action was decided upon by the Chief of Naval Personnel and the Chief of the Bureau of Medicine and Surgery as a step in alleviating problems brought about by the reduction in the number of medical officers authorized for the Navy, versus the continuing need for medical services by Fleet and shore-based personnel and their dependents.

It has been determined that the services of medical officers attached to certain types of ships and commands can be used to better advantage at shoreside naval hospitals and dispensaries when their ships are operating in the vicinity of Stateside ports. Accordingly, medical officers assigned to destroyer division and squadron staffs and to ACB, AVP, ARC, AVS and AKA type ships will be given additional duty at medical facilities in the same metropolitan areas as that in which the ship is homeported or in the vicinity in which the ship normally operates.

Medical officers assigned to types of vessels or units other than those indicated above may also be assigned either full time or part time TAD with shore medical facilities, when such duty does not jeopardize the basic military readiness of Fleet units. Commanders in chief and senior officers present, in coordination with district commandants, may issue such orders when practical and needed.

BuPers Inst. 1301.26 outlines the implementing action to be taken.

Officer Correspondence Course In Airplane Power Plants

The officer correspondence course, **Airplane Power Plants** (Navpers 10961-A), is now available at the Naval Correspondence Course Center. This course replaces *Reciprocating Aircraft Engines*, NavPers 10961. Wherever the latter is listed as a professional requirement for promotion of USN, USNR, or USN(T) officers, the new course is acceptable as meeting that same requirement.

NavPers 10961-A consists of eight assignments, and is evaluated at 16 points credit for purposes of Naval Reserve promotion and retirement. Personnel who completed the earlier course will receive additional credit for Navpers 10961-A if they are otherwise eligible to receive credit in this subject.

Application for enrollment should be made on form NavPers 992 (Rev 10/54 or later), forwarded via official channels.

Overseas Living Conditions

If you're due for an overseas transfer and planning to take your family along it's a good idea to find out beforehand what you can expect in the way of housing, climate, schools, stores, food and all the other things that go under the general heading of living conditions.

The Bureau makes that information easy to obtain through a series of handy pamphlets that include practically everything you'll need to know about your new overseas station. To get one, all you have to do is write to the Chief of Naval Personnel (Attn: Pers G221), Navy Department, Washington 25, D. C., requesting one copy of the appropriate booklet. Here's the latest list of the overseas locations covered.

Alaska (Adak and Kodiak)
Antigua, B. W. I.
Azores
Bahrein Island, Persian Gulf
Belgium
Bermuda
Brazil
Chichi Jima, Bonin Islands
Cuba (Guantanamo Bay)
Denmark (Copenhagen)
Eleuthera Island
England (London)
Eritrea (Asmara)
France (Paris)
French Morocco (Port Lyautey)
Germany
Greece (Athens)
Hawaii
Iceland
Ireland (Londonderry)
Italy (Rome, Naples and Leghorn)

Japan (Yokosuka, Tokyo, Sasebo and Iwakuni)
Malta
Mariana Islands (Guam and Saipan)
Marshall Islands (Kwajalein)
Mediterranean Area (Sixth Fleet)
Midway Island
Newfoundland (Argentina)
Norway (Oslo)
Nova Scotia (Shelburne)
Okinawa
Panama Canal Zone
Philippine Islands (Sangle Point and Subic Bay)
Portugal (Lisbon)
Puerto Rico
Spain (Barcelona, Madrid and Rota)
Taiwan (Formosa)
Thailand (Bangkok)
Trinidad, B. W. I.
Turkey
Vietnam (Saigon)

Besides these, there is a pamphlet on living conditions in Washington, D. C.

Permanent USN Appointments Continued in Augmentation Program for LTs and Below

The Navy's "augmentation program," whereby certain Naval Reserve and temporary officers not above the grade of lieutenant may be considered for appointment to permanently commissioned USN officers, is scheduled to continue in somewhat revised form.

The changes, as described in BuPers Inst. 1120.12E, will:

- Eliminate the procurement of Regular Navy medical, dental and all restricted line officers, except

Special Duty (Law) officers under this program.

- Eliminate the restrictive period (formerly 12 months) in which an officer released to inactive duty may apply.

- Promulgate new dates of rank for certain officers.

- Provide for constructive credit for Special Duty (Law) officers.

Those eligible are:

- Men line (11XX) officers not above the grade of lieutenant with a date of rank of 1 Jul 1953 and junior.

- Men line (13XX) officers not above the grade of lieutenant with

a date of rank of 1 Aug 1955 and junior, except aviation ground (1355) lieutenants, who may apply for appointment to the line (1100) or staff categories for which they may qualify.

- Medical Service Corps (2300) officers not above the grade of lieutenant with a date of rank of 1 May 1952 and junior.

- Officers of the Chaplain Corps (41XX) and Nurse Corps (29XX), not above the grade of lieutenant.

- Men Supply Corps (31XX) and Civil Engineer Corps (51XX) officers not above the grade of lieutenant with a date of rank of 2 Jul 1954 and junior.

- Women line (11XX) and Supply Corps (31XX) officers not above the grade of lieutenant, junior grade.

- Reserve officers with at least one and one-half years of sea experience not above the grade of lieutenant with a date of rank of 2 Jul 1954 and junior, qualified for transfer to the restricted line as Special Duty (Law) officers (designator 1620).

You must also be a citizen of the United States and have completed six months' active service as a commissioned officer. Officers who have been released to inactive duty are eligible.

There are no dependency restrictions for men but, in general, a woman will not be eligible for consideration if she is responsible for the care of a child under 18.

Personnel of the Medical Service Corps, Chaplain Corps, Civil Engineer Corps, Nurse Corps and Special Duty officers (Law) must meet certain professional requirements which are defined in considerable detail in the Instruction. No other formal educational requirements are specified but it should be understood that officers recommended for appointment will be required to compete with their USN contemporaries and should be of relative age and possess a similar educational background.

Men officers must be of an age so that their total active service will equal at least 20 years by the time they have reached the age 62; (women officers, by the time they have reached the age 50). Personnel will not be eligible for retirement within three years after appointment.

WAY BACK WHEN

USS Cyclops

On 7 Nov 1910, USS Cyclops, a collier, was commissioned at Philadelphia, Pa. A sister ship, USS Jupiter, was launched two years later at Mare Island, Calif.

As many Navymen know, Jupiter later became USS Langley, the Navy's first aircraft carrier. Cyclops remained a collier, but what became of her will probably never be known for during World War I she apparently sailed off the face of the earth.

The story of Cyclops's last cruise began routinely enough on 9 Jan 1918, when she was detached from the Train of the Atlantic Fleet and assigned to the Naval Overseas Transportation Service. At that time she was in Hampton Roads, Va., taking on a 9960-ton cargo of coal. When the loading was completed she sailed for Bahia, Brazil.

She reached Bahia on 22 January, discharged her cargo and moved on to Rio de Janeiro, where she took on a number of passengers, including the U. S. consul for that city. She also loaded 10,800 tons of manganese ore.

When Cyclops shoved off from Rio on 16 February there had been absolutely nothing out of the ordinary about the voyage. Her next stop was Barbados, B. W. I., where she picked up bunker coal on 3 March. The following day she headed for Baltimore, Md., where she was due on 13 March.

But then the routine ended in what the Secretary of the Navy, Joseph Daniels, called "the most baffling mystery in the annals of the Navy."

Without a single clue the ship seemed to vanish into thin air after she left Barbados, and neither she nor her 309 crew members and passengers were ever seen or heard from again.



Although she had radio, no distress signal was ever picked up from the sea-going workhorse. The only hint of anything wrong was the fact that she'd been having trouble with one of her engines, but even if both had been disabled she still could have called for help.

Despite a long and exhaustive search of the Caribbean and South Atlantic, no trace of the collier was ever found—no wreckage, no sightings by other ships—nothing.

At first it was thought that the ship must have been the victim of an enemy submarine or mine. However, when German sources were checked after the war, that theory had to be thrown out, because it was definitely established that there were no U-boats or enemy mines in the area.

Since then, various explanations of the disappearance have been advanced. None of them have ever been accepted as satisfactory.

Was she lost in a storm? Was she sabotaged? Or, is she still drifting at sea as an unfound derelict?

Maybe someday you can find the answer.

You must meet the physical standards appropriate to your grade, as established by BuMed. Minor defects, which do not interfere with satisfactory performance of duty, will not be considered disqualifying.

Applications may be submitted to the Chief of Naval Personnel (Attn: Pers B625) at any time for consideration by a continuing selection board. Again, details of the material which should accompany your letter of application are listed in the Instruction.

Officers not selected for augmentation cannot reapply for at least 12 months.

Changes in Travel Regulations Clarify Rules on Storage of HHE

Major changes in the storage provisions of the *Joint Travel Regulations* affecting a Navyman's entitlement to storage of household goods at government expense became effective on 1 December.

These changes, which primarily affect temporary storage, will implement existing law and clarify existing entitlements.

Temporary storage in connection with shipment of household goods can be authorized at the *place of origin, in transit, or at destination*. Under the new changes, you will be authorized to have your household goods stored at government expense for 90 days or less.

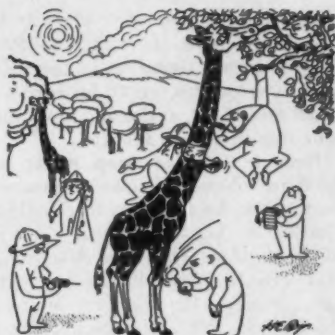
If, because of conditions beyond your control, you are unable to accept the household goods after 90 days of free storage, the transportation officer can authorize an additional 90 days of storage at government expense. Specific situations warranting such authorization are spelled out in the changes. Should the transportation officer disapprove the application after the initial 90-day period, you pay all further charges.

Navyman Meets Giraffe on Scientific Safari

Does a giraffe have to have high blood pressure to keep blood flowing uphill to his head? If so, what keeps him from blacking out when he bends down to drink water?

Morris H. Smith, Jr., HM3, USN, has just returned from South Africa with a scientific "safari" sent there to find the answers to those and similar questions. Through its work with the world's tallest animal in a month-long study of "Gravitational Factors Influencing Intravascular Pressure and Blood Flow," the expedition may add important new data to man's knowledge of the circulatory system. Smith, a cardio-pulmonary chemistry technician at the U. S. Naval Hospital, Portsmouth, Va., was the only Navyman in the unique project.

With other members of the party he left New York by air in October, landed at Capetown, South Africa, and motored nearly 700 miles to



Farm Eiland in the Transvaal. There, four newly-captured giraffes were used as "guinea pigs" and Smith worked in a mobile lab helping to analyze the blood of the big animals.

The study was sponsored by the Office of Naval Research and the Bureau of Medicine and Surgery and conducted by Duke University.

As a general rule, temporary storage is authorized only in conjunction with shipment of household goods. The changes define exception to this rule, and authorize storage without shipment in cases of modification or cancellation of orders. Further storage can also be authorized, if necessary, when you receive further permanent change of station orders upon assignment to a new duty station and have been unable to re-establish residence because of time.

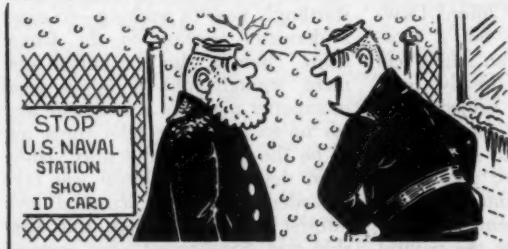
Another major change provides non-temporary storage for making a permanent change of station with temporary duty en route.

To simplify the existing regulations, a table reflecting situations under which entitlements can exist, and the applicable termination dates,

is included in the changes.

Another innovation contained in the changes is the authorization of cumulative entitlements, thus permitting a serviceman, whose entitlement to temporary or non-temporary storage under one situation has expired, to have entitlement to storage under another situation.

The changes emphasize the responsibility and authority of the transportation officer in administering the *Joint Travel Regulations*. Acting as agent for the government, this officer has the authority to approve or disapprove applications for storage. He can decide whether to use commercial or government facilities for storage, decide on the location of storage points and assist you in your problems.



"Who do you think you are, Santa Claus? . . . Coming in this gate without showing your I.D. card!"

BOOKS:

PLENTY OF SALT FOUND IN THIS MONTH'S SELECTIONS

THE TREND TO ROUSING SEA TALES of World War II, with emphasis on submarines, continues in the volumes selected this month for review. You'll find these, and many more, in your ship or station library.

Through Hell and Deep Water is the third volume of Pacific submarine warfare to be written by VADM Charles A. Lockwood, USN (Ret.) and Col. Hans Christian Adamson, USAF (Ret.). This tells the story of Sam Dealey, the skipper of USS *Harder* (SS 568) who became one of the U. S. Navy's first ace submariners of WW II. It takes him from his boyhood, through his years at Annapolis, to his first and last

command of the new sub *Harder* and her part in winning the war at sea. From the first fitting-out moment when Sam assembles and trains his crew until the last vital mission against the enemy the tension mounts. But this is more than just another naval biography. It is primarily a story of *Harder*, her men, and her six patrols. It is a full-size picture of a single famous submarine, her accomplishments, her mechanical complexities and striking power and the daily life aboard.

Some time in June 1944, the cry of "Boarders Away" rang through a U. S. Navy ship for the first time in more than 100 years. It was the occasion of the capture of the German submarine *U-505*, vividly described, together with other phases of submarine warfare in the Atlantic, in **20,000,000 Tons Under the Sea**, by RADM Daniel V. Gallery, usn. For the then Captain Gallery, skipper of USS *Guadalcanal* (CVE 60), and his Task Force 22.3, the capture of *U-505* was only one phase of the long and dangerous battle against the deadly U-boats. The capture was accomplished only after months of careful planning and under the most hazardous conditions. No member of the boarding party was familiar with submarines, much less the German variety, and no one knew how effectively the sub might have been mined or when it would sink. Once captured, the sub had to be towed more than 1700 miles over the stormy Atlantic to a safe port. For drama and suspense, the tale equals or surpasses many an effort in the fiction field.

An account of another war, **This Hallowed Ground**, by Bruce Catton, tells the Union's side of the Civil War and, as such, serves as a companion piece to the earlier *The Land They Fought For*, by Clifford Dowdley. Although anyone but a thoroughgoing Civil War fan might feel that everything has already been said or written on the subject, Catton breathes new life into the familiar tale. The record starts with the "trouble" in Kansas, goes on to the firing on Fort Sumter and the uncertainties in the opening months of the war, and tells of the painful problems of command. All these are

well known, but the author breathes into these situations and battles an immediacy and vividness that will live long in your memory.

The martial theme continues in **Decisive Battles of the World**, by Fletcher Pratt, in which he discusses the development of Western civilization as it has been shaped by the rise and fall of great nations in decisive battles. Expressed in this manner, the theme sounds stiff but Pratt's treatment is not. Writing in an easy, flowing style, he tells of vicious land battles such as those of Vicksburg and Austerlitz; of the mighty sea battles of Trafalgar and Midway. But he cites more than the formal conflicts. He tells of a desperate struggle between the Persians and Arabs in a blinding sandstorm; of an incredible massacre in the Hippodrome at Constantinople, where rioting mobs found themselves fatally encircled by steel-clad Imperial troops. But perhaps the most exciting battle of all is the Battle of Midway where the outnumbered U. S. Pacific Fleet broke through the clouds to sink the crucial four invading Japanese carriers. This type of history can make a fan of you.

The fiction this month goes into past wars, also. In **Caleb Pettengill**, USN, George Fielding Eliot deals with a young naval officer's devotion to his ships and to his way of life aboard them during the Civil War on the coastal waters off Virginia. Pettengill's loyalties are with the North, but he finds it as difficult as many Southerners to reconsider old friendships and romances when former friends suddenly become enemies and spies.

Caleb Pettengill tells the story of the Civil War from the Union side; **Our Valiant Few**, by an equally gifted writer, F. van Wyck Mason, tells it from the Confederate Navy viewpoint. *Valiant Few* tells of the attempts to break the blockade around Charleston, and of the many innovations—many of which came startlingly near to working—to carry underwater warfare to the Union ships. There is also the human element strongly played by a local newspaper man, his actress-wife and his no-good brother who turns out to be the villain of the story. However, details of the naval war take precedence over the standard love interest as man after man, ship after ship and engagement after engagement are lost.

NOW HERE'S THIS



Depreciation in Right Direction

The sound of jet planes, shrieking on the runways or thundering overhead is "old hat" to Navy men at NAS, Quonset Point, R. I., but there's one noise there that always attracts attention.

It's the chug, clatter, roar and sputter of an ancient, four-cylinder automobile that looks as out-of-place on a modern air station as a horse-drawn streetcar would on the Indianapolis Speedway. The antique puddle-jumper is a 1909 Woods Mobilette, one of only three such cars in existence. Its owner is John H. Allison, AKC, USN, who obtained it 22 years ago.

Although the hand-cranked, open sided convertible is a far cry from the sleek cars of today, it has one feature even the newest models can't claim—the older it gets, the more it's worth. Originally the Mobilette sold for \$285 (plus 15 bucks for a glass windshield and black top).

Not long ago, Chief Allison turned down an offer of \$3500 for it.



The Search for a Canal Site

Nearly 50 years before the United States began construction of the Panama Canal, an assistant surgeon of the U. S. Navy, from USS *Preble*, accompanied by a seaman, was granted permission to search for a short, easy route from the Atlantic to the Pacific across the Isthmus of Darien (now known as the Isthmus of Panama). It is possible that the findings of this two-man Navy team had a part in the final decision concerning the final route.

Within a very few years after the arrival of the early Spaniards in the New World, they were probing that narrow neck of land between North and South America in an attempt to find a means of easy passage between the Atlantic and Pacific Oceans. These efforts were continued by many of the maritime nations throughout the following centuries until, in August 1914, the Panama Canal was finally open to traffic.

Well-nigh forgotten today is the controversy which raged over the type of canal, the route to be chosen, and under whose authority it should be operated. For years before construction actually started, the question of an Isthmian canal became the subject of diplomacy and conflict of interests between its potential users. Finally, in 1879, an International Congress for Consideration of an Inter-oceanic Canal met in Paris to work out some sort of solution. This led to the first attempt, by France, to conquer the tremendous engineering problems involved in the construction of the canal. Ten years later, in 1889, their effort collapsed and the Isthmus returned to the jungle.

In 1889, after more than half a century of exploration, including a number of naval expeditions, the United States started serious investigations by means of an Isthmian Canal Commission, under the direction of RADM John G. Walker, USN. Finally, in 1904 the monumental job of building the canal was begun.

Today, the present route is assumed by most of us to be the only logical and feasible choice. It wasn't always this way. Spain had early discovered four good possibilities: Tehuantepec, Nicaragua, Panama, and Darien Atrato, and each of these, over later years, had received serious consideration and earnest supporters.

On the following pages is an account of one of the early exploratory trips by Navy Surgeon W. C. Caldwell, who was accompanied by Seaman William H. Parker. It is preceded by his letter requesting authorization for the expedition.

From *Exploration of Isthmus of Darien, 1869*, a notebook of W. C. Caldwell, Assistant Surgeon, USN, made available through the courtesy of the Navy Section, National Archives, Washington, D. C.



NATIVE HUTS of explorer's day were a far cry from the travelers' accommodations to be found in Panama now.

"DURING MY LATE VISIT to the Rio Darien & Savana as one of the party sent to obtain specimens of wood suitable for ship-building, I was much impressed with the importance and practicability of an Inter-oceanic ship canal from the Rio Savana to the Atlantic. I obtained much valuable and reliable information in relation to this route from Messrs. Andrew Hasack and Robert Nilson who have lived at Chapigana on the Rio Darien for the last 10 years.

"It is their opinion that the isthmus has never been crossed from ocean to ocean and also from information collected during many years from Indians, traders, hunters, and others who have visited the interior north of the near waters of the Chucunague, they have no hesitation in pronouncing that there exists a practicable route for a ship canal from the Gulf of San Miguel Savana to Fuerte del Principe (a few miles above which the tide reaches), thence northerly (about $\frac{1}{2}$ by E.) over low ground to the Atlantic to Caledonia Bay, or a little north of it.

"I conversed with Manuel Maria, a hunter and guide, who accompanied Capt Prevost when he crossed in a direct NNE to the Atlantic and he stated that he climbed a tree and beheld the Atlantic in the distance. The country was in a lower level to the northward route and no apprehensions need be felt for the attacks of the Indians. The whole country is low, well wooded, watered and abounding with game, and he states that a small party can cross from the Savana to the Atlantic and return in 10 days without fear of Indians or disease. In case of necessity the whole route could be traced in one day.

"In view of the importance of demonstrating the feasibility or impossibility of constructing a ship canal at this point and anxious to anticipate any survey or exploration by any government but our own, I most respectfully ask permission to be absent from the ship for a sufficient length of time to make a hasty exploration of the country.

"I would be pleased to have one or more men accompany me, and also that a small quantity of provisions be served to last the party until our return.

Further than this I ask no assistance from the ship and will rejoin her as soon as possible, and if she sails before my return, at my expense. Hoping that you will accede to my request, which I have made after much reflection I have the honor to be your most obedient servant.

"It is proper that I should here state that especial credit for suggesting the route should be given to Mr. Andrew Hasack of Rio Darien. This gentleman is a native of Scotland."

WITHIN A FEW DAYS after my application to explore the route, I received from Com Marvinne a leave of absence for three weeks.

I found it impossible to obtain an accurate barometer, correct charts or maps of the interior. I provided myself with "Autoptic Map of the Isthmus of Panama and Darien, New Orleans, 1807," a small government report of Dr. Culler's work, as well as two pocket compasses which were carefully compared with the ship's. A very intelligent and active seaman William H. Parker was selected to accompany me.

On Saturday, March 28th 1859 at 2 pm, we left Panama in a large canoe and arrived at Chapana on the Rio Darien about 10 miles above the mouth of the Rio Savana on Tuesday. The Savana emptied its waters into the Darien within two miles of Boca Chica and the united streams enter by the deep passages of Boca Grande and Boca Chica into the Bay of San Miguel—a fine and spacious harbor which would accommodate the commerce of the world, with a safe anchorage.

Within a week, in company with Mr. Hasack, I visited Molinica, Panogana (an Indian Village) and Tarisa, which are situated on the Darien and Chucunagua rivers 30 or 40 miles above Chapguna. A letter to Mr. Manuel Mabica, Alcalde of Tavisia obtained the services of an Indian interpreter and his cousin, a lad of 14.

IN MOLINICA, I met with an intelligent Indian upwards of 80 years of age, but in the full exercise of his faculties, who distinctly recollected that when he was a boy his father, with a body of 300 Indians from Miroguana, were employed by the Spaniards to open a road 30 varas wide from Principe to Caledonia Bay which was accomplished, altho with much difficulty as they had to contend against the hostility of the Indians of the interior. The Indians from the head waters of the Chucunagua frequently visit Tarisa to trade. A party of them had recently been in Tarisa and stated that the Indians who had been engaged in the murder of Capt Prevost and men had been arrested by the head chief and punished by shaving their heads and lacerating their bodies, a perpetual disgrace among the Indians, for those who perpetrated that outrage. This had been done to propitiate the anger of the English, and it was understood that a large force would be sent to chastise the tribe. One of the offenders thus punished was with the party which had visited Tarisa. It is believed that those Indians would not prove hostile to any future explorers.

On Sunday, at 5 am we left Chalyana in a canoe for Fuerte del Principe on the Savana. The native Negroes have so much fear of the Indians of the interior that I could not prevail on more than one (Rusilio) to accompany me. I gave them to believe that I was going to examine the medicinal plants of the Isthmus and also

would endeavor to cross to the Atlantic if possible. The Savana is a fine river about three miles wide with 10 fathoms at low water at its mouth. It is skirted by a range of hills 300 feet high, well wooded, to a group of three islands about 10 miles from its mouth, where it is only about $1\frac{1}{2}$ miles wide with six fathoms at low water.

On the morning of the 6th of April (Monday) we arrived at Principe, on the right, or west, bank of the Savana. The fort was abandoned by the Spaniards in 1790 and at present no vestige of it remains excepting an old Spanish *botiga*, or earthen water jar which was found by my interpreter near the fresh water ravine. The site of Principe is overgrown with bushes, but a rancho built by wood choppers was found near it and used as our camp. Principe is 20 miles from the mouth of the Savana.

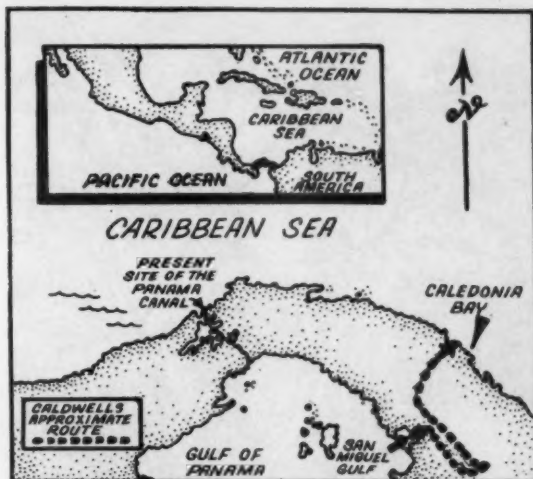
The tide reaches two or three miles above, but I determined to start from this position, as there was some difficulty in ascending higher on account of ledges of rock in the course of the river. The tide rises here about 10 feet; at low water there is only about five feet, the river is about 25 yards wide.

EARLY ON THE MORNING of the 7th, we started on a N $\frac{1}{2}$ E course by compass, hacking the undergrowth and blazing the trees as we went. In order of march, Parker went first, with a compass to lead the natives, then followed the interpreter, Negro and boy using their machetes in cutting a path by which we could readily retreat as rapidly as we could comfortably walk. I came last with my compass to correct the first if necessary. Each of the party (except the boy who had a flask of water) carried a pack of about 20 pounds of provisions, ammunition, india rubber cloth, trinkets for the Indians, etc., in addition to his gun and machete.

This day we crossed the Savana four times, by wading, in as many miles. This was in the fresh water portion of the river, which has a bed about 20 yards wide, but the stream of water is very insignificant. We estimated the whole distance and traveled this day at eight miles. It was probably less. In the morning we crossed the Picodura then hacked our way through a nearly grown over path bearing NNE, by compass, which was supposed to be Capt Prevost's route of December 1853.

On a tree growing on the left bank of the river when we crossed the first time, was found marks with a knife "W. Jones, Dec 19 185— Virago." The surface of the country traveled from Principe to our camp at night was level, or very gently undulating. The last mile was slightly ascending and we believed had not a greater elevation of more than 160 feet. The ground was densely covered with an undergrowth of various species of palms, vines and canes with a few large trees, and numerous dry ravines ran tortuously in every direction. The last time we crossed the Savana it was a very small body of water in a bed about 12 yards wide formed by the union of two ravines which I suppose to be the headwaters of that river.

OUR CAMPING was a very simple operation. We built a fire near a pool of water if possible and spread a few palm leaves for our beds and wrapping ourselves in our weather coats were soon fast asleep. We were



'NO APPREHENSIONS need be felt for the attacks of Indians,' Caldwell said in describing route he followed.

aroused' occasionally by the growls of tigers near us or the heavy tread of tapirs, which were easily driven off by our cries or by making a blazing fire.

On the 8th, we crossed twice an unknown river running WSW. It was larger than the Savana at Principe. From this time until the return of the party to this point we suffered very much from want of water. Here and there a stagnant pool of water was found. Frequently we endeavored to end our thirst by sucking the watery sap of vines or the offensive water in a hollow bamboo stalk.

On one occasion, after eating a small quantity of an unknown but agreeable fruit, its after effect proved very unpleasant, irritating the mouth and throat, in my case, causing a slight hemorrhage from the mouth. Fortunately,

DUGOUT CANOES AND THATCHED HUTS lined water's edge in typical coastal village of Panama 100 years ago.





PANAMA PANORAMA—Clearings like this were almost 'wide open spaces' compared to country expedition saw.

no worse consequences followed. Occasionally we were compelled to leave our course to follow a dry ravine, for several miles, to search for water.

The natives would not consent to our shooting game, which was abundant near the water, for fear of attracting the attention of the Indians and we were therefore compelled to live on the bread and pork which we carried. Wild turkeys somewhat different from those of the U. S., pheasants, deer and peccaries were abundant this day. The course was N by E by compass. About six miles.

On the 9th, we made about 6 miles. Ticks and chiggers were numerous and excessively troublesome. The first find their way to every portion of the body and cause constant itching; the latter burrows beneath the skin of the feet, depositing their eggs which finally caused painful ulcers. Schools of black howling monkeys were seen and rendered the forest vocal with their discordant concerts. On the 10th, two reports of firearms were heard, which the natives said were made by Indian hunters. Parker climbed a tall tree and beheld the Atlantic Ocean NE through a gap about 12 miles distant, in the coast ranges, with the horizon beyond it.

White-faced monkeys were numerous, some, females probably, had their young clinging affectionately to their necks. Sometimes they approached very near, chattering and following the party, throwing sticks and leaves at us. This day we made about five miles. N by E $1\frac{1}{2}$ E by compass.

ON THE 11TH, the natives were very much exhausted by their labor in cutting through the undergrowth and all suffered for want of water, which was very scarce.

They informed me that they would not go further than the night's camp, and that they believed we were very near the Atlantic side. Estimate the day's travel at six miles.

Early on the morning of the 12th, the natives left me to return to their home. I used every argument and even threats to induce them to remain, but Rosilio had sufficient influence to persuade the Indian interpreter to leave me and return with him. Soon after they left, Parker and I proceeded on our course, marking the route as usual with one machete.

During the morning, Parker again saw the Atlantic to the NE from the top of a tall tree. This proved to be the hardest day's work of all, as there was a dense thicket of prickly palms and low growth, through which we were compelled to hew our way. We only made about 4 miles up to 5 p.m. In addition to this, no water had been found. The provisions were nearly expended and no game was seen and both of us were very much exhausted and suffering, especially from thirst. Two distant reports of fire arms were heard within a mile or mile and half of us.

At 4 pm I directed Parker to ascend the tallest tree near us to survey our route. He reported a low level tract of land on our course N 20° E., the same gap in the coast range through which he had seen the Atlantic on the 10th, now distant about five miles, but was unable to obtain the same view, as this was prevented by the overlapping of the mountains. I attempted to climb the tree myself but was so worn out that I was unable to accomplish it.

Here I called a consultation with Parker, and after considering the circumstances, the want of water and food, scarcity of game, our exhausted conditions and the warning of the reports of the guns of the Indians, and believing that we had already gained sufficient and reliable knowledge of the route, we reluctantly determined to return.

I believe that we traveled nearly 30 miles making a course of NNE true, and that we were within five miles of the northwestern limits of Caledonia Bay (or a little north of it, as Capt Prevost's course was the most direct one from Principe to Port Escopes) of this I cannot be sure on account of the unreliability of the charts.

The greatest elevation crossed, I suppose to be about 160 feet and it is within eight miles of Principe. Since my return to this ship I have read Capt Prevost's report in which he states that he found (by instruments) 170-foot altitude, within $6\frac{2}{4}$ miles of the Savana and from this point from the river, our courses were not very far apart. From this point to the terminus of my exploration, the land is level, tortuously marked by the dry beds of small branches and in some places there are flats which are apparently marshy in the rainy weather. Few large trees were seen, but an intricate undergrowth covered the surface.

MY EXPERIENCE is far different from that of Capt Prevost and sustains the opinions of the Indians, that the country is lower to the north of his track. He speaks of mountains, waterfalls, torrents and much large timber.

I only crossed a gently undulating country the first day a distance of less than eight miles, and then low or level

for 18 or 20 miles, to the terminus of my exploration, with very little large timber and only shallow, dry ravines, which by the tortuous course show that the country is generally level.

I feel assured that during the hurried observations thus made, several facts of importance have been ascertained: 1) that the summit level of a route from Principe northly to the Atlantic is within eight miles of the Savana and would not prove impracticable to engineering skill in constructing a ship canal; 2) that there is a lower tract of land from the Rio Savana to the Atlantic that has been examined by any previous observers; 3) that there is a gap in the Atlantic coast range near the northwestern limits of Caledonia Bay.

In reference to the first I well know that it is impossible to judge of the altitude by the eye alone with any degree of accuracy, but from the fact that Capt Prevost found only 170 feet by instrument within a short distance of the same position and the same surrounding country, I incline to the opinion that the altitude is no greater than he estimates it.

As to the second, it has been seen that we traveled not less than 25 miles over a level or descending country towards a gap in the Atlantic range. Also that we returned over our whole course in less than 20 working hours, carrying our heavy packs.

As to the third, I beg leave to quote from Osborne's report, London, August 28, 1852, which substantiates the fact and also inclines to the belief that the highest altitude is nearer the Pacific than has been supposed.

After crossing the Atlantic range at Caledonia Bay at an elevation of 276 feet, Mr. Osborne beheld a "flat extensive plain to the S.W. in the direction of the Gulf of San Miguel as far as the eye could reach." He and his assistants were forced by the Indians to follow. "They led us," he continues, "fortunately along the course of the river, which gradually assumed a more easterly direction, winding around the hills that overlapped each other, until we reached a village at its mouth in Caledonia Bay.

We were thus singularly assisted in our object by the



LIMON BAY—Canal should end here, said one of recommendations submitted before selection of present site.

discovery of a passage through the range of the Cordilleras which had hitherto been supposed to be unbroken. Our great object had, however, been obtained in finding that the Cordilleras which appeared from the sea a continuous range, had an intervening valley and that the summit between the two oceans must be in the center of the Isthmus, if not nearer the Pacific coast."

Returning, we reached Principe in the morning of the 16th. At the same time we met with the Indian interpreter and boy, who had been ordered to return to my assistance.

Explorations of the type made by Dr. Caldwell and Seaman Parker contributed in no small part to the trans-isthmian canal project. It was from research and surveys made by interested personnel that the canal program developed public interest and final selection of an approximate site could be made.

More on the Panama Canal project will be covered in future book supplements.

CANAL TODAY is one of world's most important waterways. Here, sailors watch Navy tanker passing Gatun locks.



THERE'S AN APPROPRIATE postscript to all this talk about the pros and cons of reenlistment in the example set by William D. Matott, ADC, USN, Fleet All Weather Training Unit, Pacific. Now 67 years old, he recently requested a two-year extension of enlistment. Reason given? He wanted to complete 40 years of naval service before retirement. That's practically two Navy careers in one lifetime.

★ ★ ★

Ernst Schneider, AN, of NAS Moffett Field, Calif., has a different reason for his enlistment. Just like home, he says, and well it might be. Ernst and all his nine brothers have served or are now serving in the Navy. Robert, the oldest, signed up in 1940 and, since that time, there's always been at least one Schneider—of the Glenbuelah, Wis., Schneiders, that is—in the Navy.

"There's really not much difference," says Ernst. "I've always



had older brothers to tell me what to do and help me when I needed it. A little noisier at home, I guess."

But somebody's slipping. Why aren't Ernst's five sisters signed up as Waves?

★ ★ ★

Here's a chance for you to interpret the news yourself. We have discovered that the percentage of E-7s in the Navy is higher than in any other service. The magic number is 82 CPOs for every 1000 enlisted personnel. There are 49 E-7s per 1000 in the Army and 67 E-7s per 1000 in the Air Force. The Marines number 42 E-7s per 1000. The way we figure it, you have a pretty good chance to make chief in the Navy. How do you see it?

★ ★ ★

People can be pretty nice at times. Following nothing but the dictates of his own convictions, a certain James J. McMullen, an aircraft mechanic who lives in Santa Monica, Calif., took it upon himself to offer a "Salute to the Navy" as a part of this year's Navy Day.

Expressing the warmest admiration for the Navy and its men, at his own expense he had his 600-word Salute printed and mailed to all active ships, to SecNav, UnderSecNav, CNO and VCNO as his own personal Navy Day tribute.

"It must be a poor-spirited American whose veins do not tingle with pride when he reads of all the heroic deeds of you men of the Navy," says Mr. McMullen, in part.

That's what we think, too.

The All Hands Staff

The United States Navy

Guardian of our Country

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends. The United States Navy exists to make it so.

We Serve with Honor

Tradition, valor and victory are the Navy's heritage from the past. To these may be added dedication, discipline and vigilance as the watchwords of the present and future. At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families. Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

The Future of the Navy

The Navy will always employ new weapons, new techniques and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war. Mobility, surprise, dispersal and offensive power are the keystones of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past. Never have our opportunities and our responsibilities been greater.

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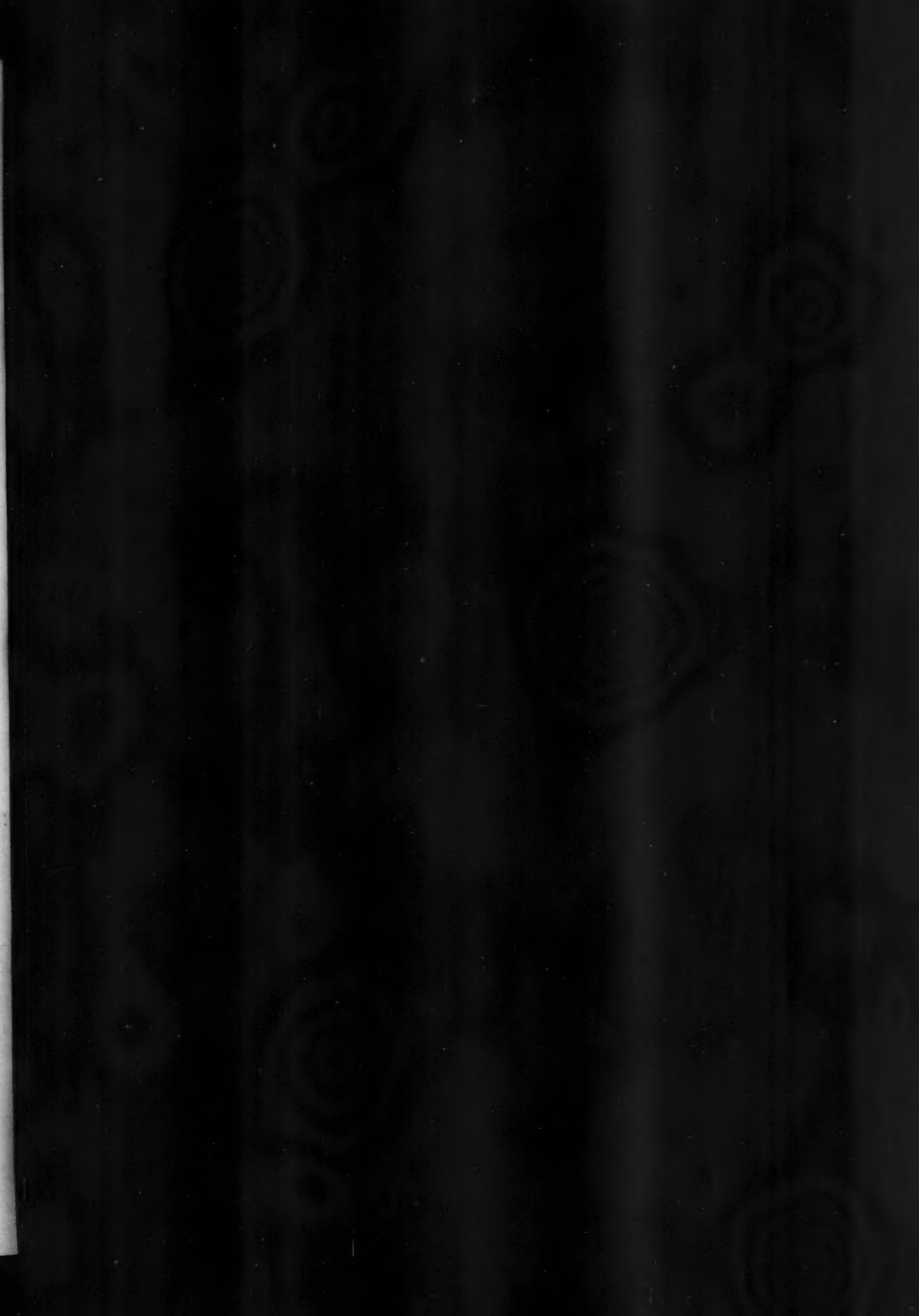
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• AT RIGHT: TO SHORE—Coastwain at tiller of motor launch heads toward Fleet landing at Long Beach with liberty party from USS Hamul and her nest.

ALL HANDS





**THINK IT OVER
THEN SHIP OVER**

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